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Editorial

THE Editors feel that a word of explanation about the present position of the JOURNAL OF THE ROYAL NAVAL MEDICAL SERVICE is due to subscribers

It will be recalled that prior to the outbreak of war in 1939 the Editors of the Journal were the Professors of Medicine and Surgery at R N Hospital Haslar When the 'batch' system ceased and the Professors went as divisional Senior Medical Officers to R N Hospital Barrow Gurney they continued to edit the Journal from there but when this hospital closed down towards the end of 1946 the editorial duties devolved on S M O (M) and S M O (S) at R N Hospital Haslar It is anticipated that about the middle of 1948 when the new R N Medical School opens at Monckton House Alverstoke Gosport the office of the Journal will find a new and permanent home there under the editorship of the Staff of the School

The many 'crises' during 1947 have considerably delayed the publication of the various issues It is hoped that soon all will be on an even keel again and the 'Griffer's Gazette' will continue to bring to present and past members of the Medical Dental and Nursing branches of the Service items of professional interest travel gossip sport appointments and promotions &c.

The present Editors therefore hope that old subscribers will continue to support the Journal and that new entries will also give it both their financial and literary help.

Articles

OBSERVATIONS ON AMŒBIASIS IN CEYLON

BY

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R N V R

AMŒBIASIS has been a constant problem to members of the Services stationed in Ceylon The disease is endemic in the native population of whom a high proportion carry the causal organism (Kershaw 1946 Stewart 1947a) and who handle much of the food which is served to the European population

It is not proposed here to restate findings which have already been fully described by other writers in the inter war years and at the close of the late war Our purpose is to present certain epidemiological and clinical findings which emerged mainly from routine work in two general hospitals

EPIDEMIOLOGY

Fig 1 compares the incidence of amœbiasis with that of bacillary dysentery and undiagnosed diarrhœa among Europeans as shown by the admissions to a combined Services hospital over twenty one months in 1945–46 The sudden increase in amœbiasis at the beginning of 1946 coincided with a fall in the number of cases of undiagnosed diarrhœa and was probably attributable to a more systematic method of investigation then instituted Nevertheless a considerable number of latent cases escaped detection and returned to Britain unrecognized (Stewart 1947a)

Fæces from the Asiatic cooks and stewards in three establishments in the different climatic zones in Ceylon were examined by the copper sulphate flotation method and the incidence of cyst passers is shown in Table I together

TABLE I —I HISTOLYTICA CYST CARRIER RATE IN ASYMPTOMATIC ASIATIC FOOD HANDLERS

	Number of food handlers	Cyst passers	Per cent	Average number of Trans vaginal specimen	Per cent diagnosed in one specimen	Per cent diagnosed in four specimens	Average specimen
Veyangoda— Low country wet zone	310	30	9	7	40	86	93
Diyatalawa— Up country	375	50	13	6	56	82	92
*Torrinmalee** Low country dry zone	544	60	11	6–12	56	90	93

*A further 14 passed trophozoites

The percentages diagnosed are derived from cyst passers both symptomatic and symptomatic

with an estimate of the number of examinations required for efficient diagnosis. Many equivocal or apparently contradictory opinions have been expressed as to the relative importance of water supplies, flies, food handlers and vegetables as vehicles of infection (Worvon and O'Connor 1917, Craig 1934, Spero and Johnson 1939, Schoenlober 1949, Roberts 1947). That the part played by the food handlers may be limited has been suggested by Spector and Buki (1934) who showed that cysts could live for a maximum of forty-five minutes under the optimum conditions of moisture beneath finger nails. Such a finding, however, does not preclude the spread of infection by individuals with primitive hygienic standards. It is clear that the same factor cannot be incriminated in different communities.

It is difficult to obtain data from a control experiment under the conditions of mobility of World War II, as infection could be acquired on many occasions in different places. Information is obtainable, however, from small groups who remained in one place for a year or more. Such an observation derived from two combined messes in Diyatalawa is shown in Table II. A total of

TABLE II.—REDUCTION OF THE INCIDENCE OF AMŒBIASIS IN TWO MESSES BY FOOD HANDLER CONTROL

Food handler supervision									
Fresh cases	12	3	3	3	4	1	—	—	—
Readmissions	—	—	1	1	2	1	—	—	—
Three-monthly periods—									
	October 1943 to December 1945								
	Oct–Dec	Jan–Mar	Apl–June	July–Sept	Oct–Dec	Jan–Mar	Apl–June	July–Sept	Oct–Dec

about 600 people were constantly present with individual exchanges occurring after one or two years' service on this station. The relieffs usually came from temporate climates, and in the majority of instances it seemed likely that constant exposure to infection first occurred in the messes described. After a survey in December 1944 three cooks and eight stewards who were found to be infected with *Entamœba histolytica* were either treated or transferred to other duties. Thereafter infected food handlers were excluded from employment in the mess; this was associated with an abrupt decline in fresh cases and readmissions of amœbiasis. Other means of acquiring the infection were eliminated as far as possible: for the water supply was filtered, superchlorinated and piped; the sewage disposal was water borne, and inter-communication was improbable. No uncooked fresh vegetable was served, nor were flies troublesome.

A similar fall in the percentage of incidence of amœbiasis occurred in Trincomalee after June 1946 following a period during which food handler control had been gradually exercised in the large establishments in the area (fig. 1, Table I).

The admissions for bacillary dysentery at some periods exceeded those for amœbiasis, but severe cases of bacillary dysentery were rare and complications negligible, sulphonamide treatment being highly efficacious. No definite cases of chronic bacillary dysentery were identified among Europeans, though in a few instances the sharp bacillary infection appeared to unmask a latent amœbic

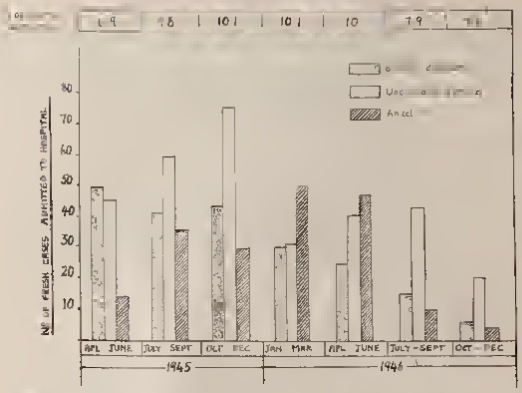

FIG. 1.—Hospital admissions for amœbiasis, bacillary dysentery and undiagnosed diarrhœa among European Service personnel in Ceylon.

infection and one of the writers (G. F. S.) has noted among Service repatriates a few cases in whom a prolonged state of colitis has supervened at varying intervals after one or two attacks of bacillary dysentery. With these few exceptions however, bacillary dysentery menaced neither health nor working hours.

Amœbiasis stood in sharp contrast: severe cases, complications and relapses were comparatively common and about a quarter of our cases relapsed within a few months. The danger of reinfection was high and in some stations difficult to escape. No fatalities occurred among Europeans but the general impairment of health and loss of working hours were serious problems. In the great majority of cases the onset was insidious and (except in the dysenteric cases) clinical diagnosis uncertain.

The slow onset is indicated in Table III which shows that 68 per cent. of the patients had been on the station for more than six months before the onset of symptoms. The remaining 32 per cent. however emphasize that signs of infection may develop in less than six months. Only one such case was diagnosed by routine stool examinations in an individual who had not reported sick, the remainder reporting with acute diarrhœa or abdominal pain. Six cases were in the dysenteric state (three with extensive ulceration) and in one case cysts appeared after an attack of flexner dysentery. For the most part, this 32 per cent. were in good general condition and had no complications.

TABLE III —DURATION OF TROPICAL SERVICE BEFORE ONSET OF SYMPTOMS

Duration	*Cases (per cent)*
Less than 1 month	1
1–3 months	8
3–6 months	3
6–12 months	33
1–18 months	17
18–24 months	6
More than 2 years	12
Total	100

CLINICAL FINDINGS

The clinical data is drawn from 140 European cases treated by two of the writers (P J O M and G T S) in 1945–46 In each case, the diagnosis was made by identification of the parasites in the faeces or in one or two cases in rectal scrapings All the patients were between the ages of 19 and 40 years and, so far as we could judge were suffering from no medical disorder other than amœbiasis all but six of the cases were male The main clinical features of the series are summarized in Table IV

TABLE IV —MAIN CLINICAL FEATURES OF 140 CASES OF INTESTINAL AMŒBIASIS

Gastro-intestinal	*No*	*Per cent*	*General*	*No*	*Per cent*
Diarrhœa	118	84	Loss of weight	16	11
Constipation	14	10	Pyrexia	20	14
Abdominal discomfort	114	81	Lassitude	21	16
Abdominal tenderness	78	59			
Blood in stools	69	49			
Vomiting	25	18			
Nausea without vomiting	23	16			

Diarrhœa —As might be expected this was the predominant sign We have used the term to include all cases who had one or more loose precipitate stools or who had more than three bowel movements per day Though often mild in nature the diarrhœa tended to be persistent or recurrent 112 cases had a history of more than one attack of diarrhœa 14 of these giving a history of having been previously diagnosed as amœbiasis These previous attacks were of an intermittent character in 48 cases with normal bowel function in the intervals Some complained of only a loose precipitate morning stool Constant diarrhœa was rare and it seemed likely that spontaneous remissions were the rule in the earlier stages of the infection 14 cases gave a history of constipation It will be seen therefore that only 14 out of 140 patients (10 per cent) enjoyed what in their opinion was normal bowel function prior to the complaint which brought them into hospital In assessing such histories allowance must be made for the fact that few normal individuals escaped an occasional attack of diarrhœa whilst in the tropics To us the best pointer to amœbiasis seemed to lie in recurrent diarrhœa or in alteration in bowel habit

Sixty [illegible]n cases were dysenteric (10 with bloody diarrhœa and vegetative parasites) The remainder (73) were diagnosed as amœbiasis from the presence of *E histolytica* cysts in the fæces and from the absence of any other diagnosis referable to the gastro intestinal tract Of these, 51 had diarrhœa but only two showed blood in the stools a scanty exudate of mucus and leucocytes was not uncommon

Twenty two cases showed no diarrhœa 13 of these reported sick with abdominal discomfort or dyspepsia while nine were identified by routine stool examination five of the latter gave histories of diarrhœa or abdominal discomfort

Abdominal pain and tenderness —These were common features in the dysenteric state and otherwise The pain was usually associated with diarrhœa and often amounted to little more than a sensation of griping in the central or lower abdomen In 15 cases (11 per cent) it was dyspeptic in character On the other hand tenderness occurred most often in one or both iliac fossæ Though often well localized the site of tenderness was not necessarily related to lesions in the underlying bowel several cases showing ulcers on sigmoidoscopic examination had no tenderness in the left iliac fossa Furthermore some of the most acute cases complained of neither pain nor tenderness

About 20 per cent of the cases had tenderness in the right iliac fossa and eight (5 7 per cent) such cases presented a clinical picture highly suggestive of acute appendicitis Each of these cases responded satisfactorily to anti amœbic treatment without surgical intervention Frequently tenderness in the right iliac fossa was associated with a palpable gurgling cæcum

Other signs of intestinal dysfunction —Surprisingly enough, nausea and vomiting were not confined to frankly dysenteric cases but occurred with equal frequency in milder cases showing cystic *E histolytica* in the fæces and often with a history of chronic dyspepsia and abdominal discomfort Constipation was noted in only mild, relatively inactive cases

Constitutional effects of amœbiasis —Severe cachexia and signs of nutritional deficiency were rare and occurred only in patients with relatively long histories of illness However, half of the patients with histories longer than six months were found to be underweight and often far from fit whereas those with shorter histories were usually of normal weight and in good health

A larger group of cases seen among demobilized men in Britain did not show this close correlation between general condition and length of infection The contrast suggests that the degree of constitutional disturbance in amœbiasis may be influenced by the duration of infection in the tropical zone The effect of malnutrition malaria and other privations of the tropical campaigns in this respect has been described by Povno (1945) and we ourselves were impressed by the rapid advance of the disease in undernourished Asiatic patients On the other hand with few exceptions our European cases had received an ample diet during the incubation of the disease and very few had experienced privation This raises again the difficulty of interpreting the pronounced individual variations in susceptibility to infection with *E*

histolytica. Routine stool examinations of samples of the European population showed that many individuals who had been repeatedly exposed to infection remained uninfected; others became cyst passers, with or without symptoms of infection, others developed dysentery.

Plasma protein estimations were performed by the method of Phillips and Van Slyke (1943), upon a random sample of 26 patients. The mean value given by this method for 17 uninfected controls was 7·3 gm. per cent (standard deviation 0·437). Of the 26 patients tested, 6 showed significant degrees of hypoproteinæmia (6·0–6·4 gm. per cent), each of these being a severe relapsing case. The remainder (20) showed values 6·6–7·8 gm. per cent. Lowering of plasma proteins in certain cases has been adduced by Elsdon-Dew (1946) as evidence of nutritional deficiency in amœbiasis, but until the state of pre-suppurative hepatitis described by Rogers (1910) has been more fully studied such findings should be accepted with reservations. Shute (1947) has recently shown that alterations in the cephalin-cholesterol flocculation test can be observed in cases of amœbiasis in the absence of clinical signs of liver involvement, and it is possible that hypoproteinæmia is a manifestation of liver damage rather than a pre-hepatic nutritional disorder.

Lassitude was conspicuous in 22 cases (Table III). This symptom, though difficult to assess in a hot humid climate, was most marked in those cases with a long history of intermittent diarrhœa and abdominal discomfort. Cases with shorter histories (less than six months) were not exempt, however. On several occasions the degree of lassitude which developed, and the improvement which followed anti-amœbic treatment, were surprising. It seemed that amœbiasis, even in its early stages, could be regarded as an important organic factor in tropical neurasthenia. This symptom could sometimes be correlated with a slight anæmia of secondary type, which was found in 30 out of 40 cases in which full blood counts were made. In three test cases the anæmia was corrected at the end of the period of anti-amœbic treatment without the exhibition of iron or liver preparations. The other anæmic cases were given ferrous sulphate as a routine. Such an anæmia was not uncommon in Ceylon, however, and its precise significance in relation to amœbiasis could not be judged without a larger survey of the apparently healthy European population.

Pyrexia.—20 cases had mouth temperatures above 99° F., and in most of these the pyrexia was mild and lasted only for 24 hours. Persistent pyrexia and high pyrexia was associated with definite signs of hepatitis or, in one instance only, with massive typhlitis.

Leucocyte counts.—These were performed upon 37 cases. A mild leucocytosis of the order 11,000–14,000 cells per c.mm. was a frequent but not invariable finding in dysenteric patients, as has been observed by Manson-Bahr and Willoughby (1928). In such cases the normal ratio of polymorphs to lymphocytes was preserved. Cases of hepatitis showed a more pronounced leucocytosis (18,000–35,000 per c.mm.), but in two such cases the differential counts showed about 85 per cent. polymorphs.

Sigmoidoscopy.—The classical lesions of amœbic dysentery are not disputed, but some of the early changes and the appearances during periods of remission are still ill-defined.

Changes Seen in Cases of Amœbiasis

(1) Raised pin-point yellowish or greyish dots with no inflammation were often seen usually in clusters at the rectosigmoid junction. Scrapings usually yielded vegetative amœbæ but occasionally we found only an indefinite type of exudate consisting of microscopic whorls of mucoid material clumped erythrocytes, epithelial cells and a few macrophages and leucocytes a day or two later stool examinations or a sigmoidoscopic scraping revealed the *E. histolytica*. In some cases of this type the *E. histolytica* found in the fæces was cystic or precystic.

(2) 'Pin point craters' (Cropper 1945) patchy hyperæmia and localized œdema were observed in rectal passers including not infrequently, those undergoing test of cure. The changes were best seen with a magnifying eyepiece but even unmagnified the affected mucosa seemed to lack lustre and was abnormal.

Changes Seen in Amœbiasis and in Other Conditions

(1) Bright red granular patches obliterating the vascular pattern but bleeding readily when touched with a wire loop.

(2) Red rounded depressions 1–2 mm. in diameter. Lesions in (1) were observed in the healing stage of both bacillary and amœbic dysentery usually replacing in size and shape the antecedent ulcers of the latter. (2) were seen in a variety of conditions—in cases of proved amœbiasis before and after treatment with and without symptoms; in cases of cryptic diarrhœa and in treated cases of bacillary dysentery; in volunteers for sigmoidoscopy with no symptoms and with stools microscopically normal.

Certain other changes are worthy of mention. Late cases in the dysenteric state sometimes showed large ulcers with heaped edges almost covered by a mound of loose muco-pus. The exudate abounded in leucocytes and macrophages and showed in stained films a multitude of pleomorphic bacteria—rods, cocci, fusiforms and spirilla. It is probable that in these cases secondary infection by one or more groups of organisms was playing a major rôle (Stewart 1948).

One case showed an annular mass in the rectum which biopsy proved to be a valve of Houston grossly thickened and ulcerated by amœbiasis. Another case showed a nodular mass on one of the valves; this was excised by diathermy after anti-amœbic treatment and showed a similar histological picture.

Complications

In addition to the series of 140 cases, 6 cases of amœbic hepatitis were seen during the period of review in European personnel. In three late cases radiological shadows were noted in the lung bases; these became less marked after emetine treatment and may have been amœbic manifestations. Hæmorrhoids and pruritis ani were not uncommon, especially in patients with intermittent diarrhœa.

A survey of an equivalent number of repatriated patients has suggested to one of the authors (Stewart, 1947) that one of the most troublesome

complications is the state of post dysenteric colitis which may persist after the amœbic infection has apparently become sterilized. The period available for follow up of the 140 cases described in this paper was too short for any exact opinion to be given concerning the frequency of this important sequela.

Secondary infection by bacteria had often been quoted as playing a part in the pathogenesis of amœbiasis (Wenyon, 1926; Melency and Frye, 1933) and as a factor in resistance to treatment (Hargreaves, 1945; Payne, 1945; Coghill, 1945). Amœbiasis may co-exist with a *Shigella* infection. In India this was relatively common (Acton, 1933; Marriott, 1945) and in some instances it seemed that such double infections tended to be extremely severe (Silverman and Leshe, 1945). In our series of cases only four coincident *Shigella* infections were identified (three *Flexner*, one *Sonne*) and in each of these *E. histolytica* appeared only after the bacillary infection had begun to subside. These cases were not unusually severe. Bacillary dysentery as had been noted above, was by no means as rare but it appeared that the patency or latency of amœbiasis was not affected.

Apart from the *Shigella* the nature of the secondary infection in humans still awaits definition. It is possible that some degree of secondary infection plays a part in every case (Wenyon, 1926) but clinical evidence of this is obtained only when the exudate becomes frankly purulent. In our experience this occurred only in late and relapsing cases. It is well to note, however, the indirect evidence afforded by the fact that many cases of amœbic dysentery are benefited by concurrent treatment with sulphonamides (Bloom, 1944; Coghill, 1945) and penicillin (Hargreaves, 1945). Cultures made from such cases yielded only organisms which are usually considered to be members of the normal intestinal flora; the increased prevalence of certain atypical coliform organisms may be of significance (Stewart, 1947*b*) but there is as yet no conclusive evidence that such organisms are actively pathogenic in human amœbiasis.

Treatment

In the cases described specific anti-amœbic treatment was withheld until the parasite had been identified microscopically. In our view there was only one circumstance in which a purely clinical diagnosis might be justifiable in a hospital patient, namely in the complication of hepatitis where already the patient was acutely ill and where in any event the response to emetine was one of the best diagnostic guides. There was nothing original about our methods of treatment. A single course lasted at least three weeks and always included three or more of the standard remedies. Emetine injections were given mainly during the dysenteric phase or where hepatitis was suspected; sulphaguanidine or succinyl sulphathiazole occasionally with penicillin, where the presence of frank pus in the stools suggested the presence of heavy secondary (bacterial) infection. E.B.1., quinoxyl and stovarsol were given for the remainder of the course, usually carried out by the "Liverpool" method (Adams, 1945). Diodoquin was tried in a few cases.

Quinoxyl or chiniofon.—On the average male patients were able to retain about 450 c.c. of 2½ per cent. solution for six hours on alternate days throughout

the course, the average maximum was 546 c.c., the range being 300–600 c.c. The amount was increased gradually—100 c.c. was given on the first day and increased thereafter according to the patient's tolerance. It has been shown recently (Daly, 1947) that volumes approaching 700 c.c. are required to reach the caecum, so it would appear that some of our patients failed to derive full advantage from this particular item of treatment.

Response to Treatment

In treating these and other cases, we found that while most forms of treatment were capable of ameliorating the immediate signs of disease, only a large series of cases with long follow-ups and exacting criteria of cure could enable one to give a final verdict on any given form of treatment. It is not therefore proposed from this series to compare the different methods. Instead, we have made a general summary of the effects of treatment in fig. 2 and Tables V, VI and VII.

Our criteria of cure were as follows (one month or more after treatment):

(*a*) 12 stools negative for *E. histolytica* and exudate.
(*b*) Sigmoidoscopy: no active lesions.
(*c*) Not more than three bowel movements per day.

These conditions were fulfilled in 100 cases; in the remainder the test of cure was incomplete. Tables IV–VII refer to only 100 cases.

The overall relapse rate was 21 per cent.: immediate relapses constituting 13 per cent. and later ones (one to five months) 8 per cent. Of this 21 per cent., 14 per cent. showed *E. histolytica* in the test of cure specimens. It must be realized, however, that although 21 per cent. were classed as relapses, 17 per cent. showed definite and often considerable clinical improvement, though for one reason or another they failed to pass the test of cure after the first course of treatment. Only 4 per cent. proved to be intractable; thus there was no doubt as to the value of treatment. The only doubt was its final efficacy (Table IV).

When relapses were analysed in relation to the severity of the disease (Tables V and VI) it was found that relapses were significantly higher among

TABLE V.—RELAPSES IN RELATION TO SEVERITY OF DISEASE

	Relapsed	*Cured*	*Total*	χ^2	*P* >
Severe	7	6	13	7·53	0·01
Less severe	14	73	87		
Total	21	79	100		

TABLE VI.—RELAPSES IN RELATION TO LENGTH OF HISTORY

Length of history	*Relapses*	*Cured*	*Total*	χ^2	*P* <
Over 6 months	8	5	13	15·12	0·01
Under 6 months	13	66	79	0·99	0·70
Indefinite (symptomless)	—	8	8	2·15	0·30
Total	21	79	100		

TABLE VII—RELAPSES IN RELATION TO PHASE OF DISEASE AT ADMI[illegible]

Phase	*Relapses*	*Cured*	*Total*	χ^2	*P*
Dysenteric	10	31	41	0 197	0 [illegible]
Non-dysenteric	11	48	59		
Total	21	79	100		

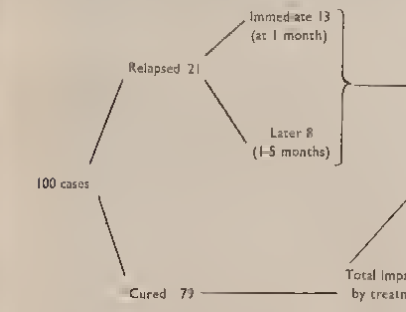

FIG 2—Response to treatment of 100 cases of intestinal amœbiasis

patients with a severe infection (extensive ulceration, cachexia) and in those with longer histories

The similarity in the relapse rate between the dysenteric and non dysenteric cases is shown in Table VII Under the conditions described this suggests that a patient with dysentery had as good a chance of cure as a case passing cysts It should be remembered however that all dysenteric cases received injections of emetine whereas the others did not Since dysenteric cases invariably showed the most extensive lesions and since the ordinary relapse rate was significantly affected by the severity of the disease (Tables V and VI) it could be speculated that the apparent discrepancy in Table VII was accounted for by the fact that many patients in the non dysenteric group received no injections of emetine

The custom of giving ten or twelve injections of emetine to every case has perhaps rightly been abandoned in many centres of treatment but perhaps the pendulum has swung too far in the other direction It has been shewn that emetine is ineffective *in vitro* against cysts (York and Adams 1926) but if it is true that amœbæ which are vegetative in lesions in the upper reaches of the colon become cystic by the time they reach the anus then there would appear to be a strong reason, in the tropics at least for giving injections of emetine to certain cases which are not apparently dysenteric Such cases are best

[illegible] patient who [illegible] admitted and [illegible] discharged from hospital in the [illegible]

While relapses were more common among those with a longer history and severe lesions Table VI shows that out of 79 early cases 18 (16 18 per cent) relapsed Hence it may be concluded that treatment should not be modified or curtailed in an early or apparently mild case

SUMMARY

The incidence of amœbiasis among European Service personnel in Ceylon during 1944–46 is assessed and related to the high carrier rate of the infection in Asiatic food handlers The practicability of food handler control is discussed

The more important clinical features of a group of 140 European cases are described The importance of amœbiasis as a cause of prolonged ill health and absence from duty is emphasized

In spite of the relatively high incidence of bacillary dysentery in Ceylon double infections with *E histolytica* and the *Shigellæ* were uncommon

Certain factors contributing to relapses after treatment are discussed

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THE MEDICINE OF HISTORY

BY

Surgeon Commander J. W. L. CROSFILL, M.D., Ch.B., R.N.

MANY of the technical expressions of medicine and surgery have passed into popular usage, with or without some loss of their original significance. One of the most curious instances, one in which its professional ancestry is not immediately apparent, is the nursery jingle, higgledy, piggledy.

Its origin is to be found in the Temple of Æsculapius itself, where one of the therapeutic preparations used was a purgative mixture known as Hiera Picra, or the Sacred Bitters. This preparation underwent many changes in its composition at the hands of the various physicians whose names became attached to their particular variety, but in essence it remained an extract of aloes, its present descendant being pil. aloes co. It remained fundamentally the same for centuries and was given in the London Pharmacopœia of 1724 as the preparation of Alexander of Tralles, who originated his variation in A.D. 540. The name Hiera Picra became Anglicized into hickory, pickory, an alteration in which one can appreciate nursery influence. According to Thompson (The Mystery and Art of the Apothecary, 1929) a preparation was still sold in the Birmingham area during the nineteen twenties by the name of "Pickery sticks," while the *British Medical Journal* for 1911 reports a case of poisoning by Hiera Picra containing cantharides, used to produce abortion. It is a natural childish transition from hickery, pickery to higgledy, piggledy, the nursery being the one place where Hiera Picra would normally be found in most frequent use.

Another modern expression, or rather a late modern expression, since it now seems to be going out of fashion, is "a fig of your thoughts." Like higgledy, piggledy, the fig in question has an air of propriety about it, entirely unjustified when one seeks its origin. Shakespeare uses the phrase in exactly the same sense that we do to-day, but also uses the Spanish equivalent *fico*. *Fico* is the Latin for fig. The expression was used for a derogatory gesture made by thrusting the tip of the thumb through the fork between the index and middle fingers, held in the form of the V sign, which is not only an aspect of victory, but is also a modern derogatory gesture. On making the classical fica gesture its anatomical significance becomes apparent. In Florio's Italian English dictionary, published early in the seventeenth century, under the title *The New World of Words* there is the following entry:

> Fica, a figge. Also a flirt with thus fingers given or shewn in disgrace. Cuntfica, to bid a fig for out. Also used for a woman's quaint, etc.

I was told by an Italian medical officer that the expression *fica* is still used vulgarly in Italy for the same organ as that for which the English vulgar and obvious derivative of "quaint" is used. It is interesting to note that social debasement of both words has taken place in English and Italian words which were once used in ordinary speech. It is tempting to assume that another almost universal English obscenity might be derived from this word *fica*. It is a curious

fact how words come to lose their original propriety and pass from ordinary speech into unacceptable slang. Those interested might care to read the opening lines of Ben Jonson's *Alchemist* for another example. A similar loss of propriety is to be found in the perfectly acceptable Elizabethan "piss," which will be discussed later. An example of a word that has risen in the world is to be found in meretricious, whose original meaning is given in any standard dictionary.

Ben Jonson does not provide the happy hunting ground for the medical Autolycus that Shakespeare does. In the *Alchemist* however he mentions one example of medieval medicine which Shakespeare has overlooked: the use of dissolved pearls as an antelaptic. Pearls were in great demand for therapeutic use, according to the price list of 1685 quoted by Thompson they were sold by the apothecaries at from four to eight shillings a pound. Pearls were a long established remedy, being mentioned by John of Arderne in the fourteenth century. They were a constituent of the Countess of Kent's powder (seventeenth century) specifically recommended for smallpox, plague and measles. In addition to its one ounce of pearls this powder contained four ounces of the black part of tips of claws of sea crabs (at 1s. 6d. per lb.), one ounce of river crabs' eyes (in fact concretions from the heads of crayfish, at 5s. 4d. per lb.), red coral (4s. 9d. per lb.), stags' heart bone (1s. 6d. per lb.), to say nothing of six drachms of vipers.

The nostrums for epilepsy were many and varied. Celsus on his contemporary writings says that in Rome one treatment was to drink the fresh blood of recently slain gladiators. (He also said that the arena provided sufficient material for a study of anatomy, and that it was scarcely necessary to dissect living criminals for this purpose.) A seventeenth century author, Charas, shared this Roman belief in the virtue of blood in a more refined way, as the volatile salt of blood, which in addition to its anti-epileptic powers was of value in cases of dropsy, gout and skin disease. Both Charles II and Henry VIII amused themselves by preparing medicaments. Charles in particular being interested in anti-convulsants. His interests were really quite wide, including anatomical dissection, as Pepys describes. A favourite occupation of his was the making of extract of human skull, which became known as his drops; the dose was up to twenty drops, used as an anti-convulsant. It is poetic justice that this therapy was actually given to the king himself as he lay dying from a sudden stroke, presumably a cerebral haemorrhage. Skulls for this purpose could be bought from the apothecaries, costing from eight to eleven shillings according to size. Paracelsus used a similar preparation, excepting that he provided three skulls in his prescription—skulls of men who had died a violent death and who had not been buried; no doubt the gallows and body snatchers of the period kept his dispensary well supplied. This use of skulls was natural enough in accordance with the doctrine of similars in cases where the head was obviously affected. It is less obvious why distillate of peacocks' flesh or the urinary calculi of bulls should have been used for the same pathology.

This use of human and animal tissues was very popular during the Middle Ages and lasted up to the end of the seventeenth century, later to be revived

in the form of modern organotherapy. One of the commonest primitive sufferers in the interests of art seems to have been the pigeon, slit open and then freshly applied in the form of a hot moist application. In his autobiography Benvenuto Cellini describes how he was cured of a metallic foreign body imbedded in his eye by the dropping into the eye of the blood of a pigeon. Even pigeon dung was used, mixed with honey, and applied as a hot dressing to relieve the pain of urinary calculus (John of Ardarne, fourteenth century). What must be one of the earliest accounts of blood transfusion is given by Pepys in his diary on 14th and 16th November 1666, and 21st and 30th November 1667. The earlier dates are those on which he describes the successful transfusion of one dog from another. The recipient was bled continuously from one vein while receiving in another the donor becoming exsanguinated and finally dying. The 1667 entries record the transfusion of a mentally unsound preacher in poor circumstances who was transfused with the blood of a sheep, twelve ounces in one minute, for which experiment the sufferer received twenty shillings. Pepys does not make it clear whether the intravenous route was used but presumably it was carried out in that way as in the experiment with the dogs. The preacher afterwards gave a recital in Latin of his experience. A repeat experiment was mentioned but Pepys does not follow this up.

On the occasion of the dog experiment Pepys writes: "This did give occasion to many pretty wishes as of the blood of a Quaker to be let into an Archbishop and such like, but, as Dr. Croone says, may if it takes, be of mighty use to man's health for the amending of bad blood by borrowing from a better body."

There are many medical references in Pepys worthy of an essay on their own. We can be amused with him when having been ordered a pair of spectacles he meets his physician a few days later at a demonstration dissection to show the anatomy of the eye, where he learns that his adviser is himself unfamiliar with such anatomy. Having bought a new wig Pepys is very concerned as to whether or not wigs will remain in fashion as the result of the plague owing to the widespread fear that the hair of corpses dead from the plague would be used for this purpose and so spread the infection. That their hair was obtained in this way in the previous century we learn from Shakespeare himself:

> Before the golden tresses of the dead
> The right of sepulchres were shorn away,
> To live a second life on second head
> Ere beauty's dead fleece made another gay.
>
> *Sonnet* 68

There is another such reference in Act 3, scene 2, of *The Merchant of Venice*.

Vapours given to the Countess of Kent were taken by Madame de Sévigné as an invigorator, who also believed in the virtues of urine. Writing to her daughter in June 1685 she says: "For my vapours I take eight drops of essence of urine and contrary to its usual action it has prevented me from sleeping." Apart from her vapours urine was held to be of value in the treatment of dropsy, jaundice, in assisting labour and for the cleansing of

[illegible] John of [illegible] used the urine of virgins [illegible] in dealing with [illegible] ulcerous ears [illegible] urine failed he tried earthworms and ants eggs [illegible] up in urine This preparation apparently healed the [illegible] and advantage [illegible] tumours Madame de Sevigné could have obtained [illegible] various [illegible] in the London chemists' shops in 1681 such as [illegible] sea horse pizzle [illegible] pounce an ounce or the more expensive stags' pizzle [illegible]

The high cost of medicines in the Elizabethan and Restoration period must have been a serious problem to the ordinary man It must be remembered that wages were low and polypharmacy and overtreatment was the rule Some idea of the costs can be obtained from these examples The payments made to those who prepared the corpse of Charles II were £212 8s 0d to the apothecary, and £100 between them to the two surgeons The apothecary who embalmed Queen Mary in 1694 was paid £200 Queen Elizabeth had an apothecary's bill for one quarter amounting to £83 7s 6d —a modest sum for the period—which included it is only fair to state an item of 6s 0d for a conserve of barberries for Sir Walter Raleigh It was the custom to dispense and charge for single doses as opposed to our method of issuing eight ounce bottles As the treatment for the day might have been an electuary or two repeated draughts of haustus a glyster bolus anti plague compound several cordials and possibly a pomander it is easy to see how the bills would mount up The picture of an apothecary's shop drawn by Shakespeare in his *Romeo and Juliet* can scarcely have represented the average Elizabethan establishment The plot demands a shady type of apothecary willing to sell poison in fact, the apothecary held a high position in the Tudor social scale, ranking after physicians but above surgeons Not only was it a lucrative profession but it was dignified by a Court appointment and was allied to a powerful and long established trade Guild or Guild Hall of the grocers and pepperers

The high cost of medication and the inability of the poor to purchase such was a cause of concern to one apothecary William Boghurst who at the time of the plague of 1665 wrote a manuscript *Loimographia* which is one of the best of contemporary clinical accounts of that plague an epidemic which gave rise to very little professional literature Boghurst says

> Now something should be contrived for poor people the Germans in a plague time invented this powder for the poor viz Ginger and sugar if each an ounce camphire half an ounce pound together This I like well enough and it would be very suitable for poor people but that the Camphire is dear but if the Camphire were as cheap as the Ginger how should the poor have so much of it as could serve such a number

He makes a suggestion apart from his own prescriptions 'pro pauperibus' to overcome this difficulty namely that the brewers should add aloes pharmacell Herbs roots &c instead of Hops to their beer In discussing the epidemiological aspects he confirms a curious observation made previously abroad that,

> Of all the common hackney prostitutes of Luten Lane Dog Yard Cross Lane Baldrins Gardens Hatton Garden and other places the common Cryers of Oranges Oysters Buns &c all the impudent drinken drabbing Bayles and

[illegible] Ronage Route [illegible] that the pl[illegible]

A[illegible] had to ha[illegible] he May open well [illegible] help the [illegible] to quote a [illegible] of William Bullein [illegible] of Suffolk Bogburst opinion that this might be dangerous [illegible] should refer to as the pneumonic type of plague

> "Some had an extreme pain on the side like a pleurisy [illegible] much fever with it and these died quickly and if you let them [illegible] died presently (he even quoted J W L C) I was [illegible] who had this pain in the side and in the afternoon he [illegible] his own head and was let blood when presently after I [illegible] and his pulse very bad but not [illegible] sunk but running h[illegible] all which was but a little way from my house yet she was dead [illegible] him

The fee for this phlebotomy would be a shilling

The shadow of the gallows falls alike over political and medical history We have seen how Paracelsus required the skulls of men who had died a violent death and had remained unburied no doubt most of his material came from the gallows Vesalius stole anatomical material from them Skulls thus exposed to the air grew a moss on them known as Usnea which was gathered and sold as an astringent The fat of executed criminals was sold by both the executioners and the apothecaries being used externally as an unguent for painful joints Mandragora or the mandrake to quote but one of the many beliefs associated with this plant was believed to grow under the gallows where it was fertilized by corpse droppings Such droppings or "grease" would be the spermatic fluid or urine which occurs in cases of death from hangings

> grease that's sweaten
> From the murderer's gibbet throw
> Into the flame
>
> *Macbeth*

The gallows served another useful purpose, medically speaking in that they provided the official material for anatomical study Such dissections were public affairs as Pepys records but in spite of the numerous executions the schools got only a couple or so bodies a year It used to be part of the death sentence that the body should be "anatomized"

Another component of the witches' broth in *Macbeth* was a birth strangled babe Whether a deliberately strangled baby or one accidentally strangled by the cord was meant is not clear This ingredient is not pure Shakespeare The poet was merely quoting the contemporary ideas as to the constitution of the ointment used by witches to enable them to perform their magical transportation and ointment which had for its fundamental base the fat of a murdered infant

I do not think that the history of Elizabethan and Restoration medicine can be adequately studied without at the same time reading and appreciating the realness of contemporary witchcraft so closely were the two subjects interwoven at that period of our history The belief in witches wizards, necromancers, sorcerers—call them what you will—was firmly held by the

vast majority of individuals the educated as well as the ignorant during the sixteenth and one particularly the seventeenth century in England It was a real belief not a mere toying with superstitious customs and lucky charms such as we find to day but a belief which affected their daily life ever present and ever dangerous Sir Thomas Browne physician and author of *Religio Medici* is always quoted as a believer in the power of witchcraft—indeed he once gave evidence in court to that effect—but by his side could be ranged many others of intellectual attainment or renown, such as James I who actually wrote on the subject of demonology and Cromwell of the warted nose during whose Commonwealth the witch hunting in England proceeded apace Proof of the importance of witchcraft is to be seen in the abundant bibliography which has arisen One of the best known is the *Compendium Maleficarum* of Guazzo, published in 1608 This book can be described as a textbook of witchcraft, at the end of which are described the various signs and symptoms by which it is possible to determine if a patient is afflicted by demons or the like According to Guazzo, transitory blisters of the tongue are produced by witchcraft but it is much more interesting to learn that the same diagnosis obtains in a case over which the physicians are unable to make up their minds about the diagnosis, or when they keep altering their opinion that is a sure sign of Devil business The opinions of Sir Thomas Browne are of more importance when we recall that he was the author of a curious work *Pseudodoxia Epidemica, or an Enquiry into Common Errors* in which he sets out to debunk such superstitious ideas as that the elephant had no knee joints that the chameleon lives on air, that the urine of toads is poisonous or that the glance of that fabulous animal the basilisk is fatal, all of which beliefs are quoted repeatedly by Shakespeare Another widely held notion was that of spontaneous generation of certain animals and insects Expressive of this and shedding light on the lack of sanitation in the dwellings (in this case London Inns) during the Elizabethan period a state of affairs confirmed by Erasmus, is the following quotation from *Henry IV*, Part I, Act 2, Scene 1

> Why they will allow us ne'er a jordan and then we leak in your chimney and your chamber he breeds fleas like a loach

I have not come across any mention of fleas used medicinally, but the records do not lack examples of a therapy equally nauseating Woodlice appeared in the official pharmacopoeias and were still in use in the eighteenth century, in a dosage of up to 200 a day William III was a distinguished recipient of such a treatment in June, 1700 when he was given salt tartar and the juice of thirty hog lice at six o clock He was suffering from the stone

The appeal of the early writers lies not only in the interesting material but to a great extent in their style One of the most readable is the *Herbal of Gerard* written at the close of the sixteenth century Its attractive use of unhurried language not without occasional deliberate humour makes one think with regret of one's own stilted phraseology and 'reflexes normal' style of note writing The examples to be given now are chosen, however, for their interest rather than for their style Writing of Clownes *Wound Wort or All heale* Gerard says

[illegible] Shoemakers servant in Holborn [illegible] had to [illegible] incumbrances many now living but I [illegible] it better [illegible] same in point which might move [illegible] reckless fell[illegible] [illegible] thus First he gave him [illegible] most mor[illegible] such [illegible] that when I gave him drink it came forth [illegible] blew out the candle another drop and gave [illegible] said dagger and also two others in [illegible] one the which [illegible] by Gods permission and the vertues of this herbe I perfectly cured within twenty daies for the which the name of God be praised '

Should we be called to treat a case of chlorosis how uninteresting our hæmatinic would sound compared to Gerard's remedy 'to make yong wenches look faire and cherry like Neither would it be long I fear, before we discovered that our patients appreciated the sixteenth century prescription in preference to our most ferruginous ammonia cit consisting as Gerard's did of Mouks Rubarb red Madder Sena Anise seed Licorice Scabious and Agrimone made up with ' foure gallons of strong ale to be taken as an ordinary drink three weeks together at the least though the longer you take it so much the better

We leave the botanist Gerard for the antiquarian Stow who was writing his *Survey of London* at the same time as Gerard his *Herbal* It is an account of the various parishes of London of their buildings churches government and history not at the first glance a happy hunting ground for items of medical interest with which in fact, it abounds Of particular interest to Service medical officers is the account given of the brothels of Southwark and the regulations passed in 1162 regarding brothels given below

> That no stew holder or his wife should let or stay any single woman to go and come freely at all times when they listed
> No stew holder to keep any woman to board but she to board abroad at her pleasure
> To take no more for the woman a chamber in the week than fourteen pence
> Not to keep open his doors upon the holidays (i.e. Holy days. J. W. L. C.)
> Not to keep any single woman in his house on the holidays but the bailiff to see them voided out of the lordship
> No single woman to be kept against her will that would leave her sin
> No stew holder to receive any woman of religion or any man's wife
> No single woman to take money to lie with any man but she be with him all night till the morrow
> No man to be drawn or enticed into any stew house
> The constable bailiff and others every week to search every stew house
> No stew holder to keep any woman that hath the perilous infirmity of burning not to sell bread ale flesh fish wood coal or any victuals etc

The word burning, or brennynge must have indicated the same disease as that called by John of Arderne chaude pisse ' Shakespeare made innumerable references to syphilis but no unequivocal one to gonorrhœa to which disease burning and chaude pisse presumably refer I think there is a play on words intended in " For one of them, she is in Hell already, and burns poor soul from *Henry IV* Part II and "A fire ill take her" from *Two Noble Kinsmen* suggesting gonorrhœal infection The fire ill could mean also St Anthony's fire the diagnosis of which might be erysipelas or ergotism as opposed to the scalding micturition of gonococcal urethritis Syphilis is

generally [illegible] have spread [illegible] manner due to the return of [illegible] ies to their [illegible] it the end of the campaign in Italy during the [illegible] few years of the fifteenth century There are abundant references, however to inflammatory lesions of the penis and urethra much earlier than 1495 of which chaude-pisse is one example Ardorne gives an illustration showing the treatment by irrigation for this condition The brothels of Southwark were under the licensing jurisdiction of the Bishop of Winchester whose London residence was adjacent to them The scene in Shakespeare's *Henry VI* Act I where the Bishop of Winchester is twitted on his association with the brothels is founded on the account given by Holinshed in his Chronicles The term Winchester goose became applied to those infected in these brothels

> Some galled goose of Winchester would hiss
> Till then I'll sweat and seek about for eases
> And at that time bequeath my diseases
> *Troilus and Cressida*

The use of the word piss is now relegated to the back streets but it was formerly used in ordinary speech and writing as a word in common use Stow Boghurst and Shakespeare all used it A further example can be found in the writing of the famous Willis who described diabetes in 1679 as the Pissing Evil A modern survival of the word is found in the French for dandelion *pis-en-lit* which perpetuates not only the former propriety of the word but also the therapeutic belief and the modern folk lore belief in the properties of this wild flower Dandelion was only one of a large number of other plants which were thought to have the virtue of 'provoking urine' So numerous do they appear to have been that on reading Culpepper's *Herbal* it was a relief to come across Darnel a plant which had the opposite effect

It is an interesting pastime trying to elucidate the pathologies of historical characters from the old historians historical records and letters at times tantalizing from the lack of detail or from the loose terminology used Queen Elizabeth's death can be ascribed to cerebral thrombosis and atherosclerosis She had remained in good health both physically and mentally until some nine months or so before her death when during the latter half of 1602 she started going downhill becoming melancholic and sighing and 'sad at heart' She became decidedly worse in the spring of 1603 it being thought that her mind wandered at times She was obviously ill in the middle of March but would not go to bed On the 23rd of March she became speechless and then went to bed one arm lay outside the clothes the other being underneath She was able to understand speech and answered by moving one hand lifting it to her head History does not record or not so far as I have been able to find which hand lay in bed and was presumably paretic but it is to be assumed that with her speech centres gone it would have been the right hand which was in bed She died the next day having been in bed for only three days and having refused treatment She died aged 70 rather more than the normal expectation for those times and appeared to have escaped the luetic infection from which Henry VIII is supposed to have suffered Contrary to her wishes her body

[illegible] so that her heart could be [illegible] Her health was continually [illegible] rivers spilt by her [illegible] of [illegible] and she [illegible] up [illegible] it was the custom to keep [illegible] the [illegible] let the [illegible] proceeding obviously unable [illegible]

I have not been able to find evidence from the [illegible] complete series to which I have had access at what period Henry VIII contracted his syphilis. From the large number of miscarriages that Catherine of Aragon endured it appears more than likely that she had herself contracted it. I cannot agree that the famous Mary Tudor show the evidences of congenital syphilis. Henry VIII had an intermittent ulcer of the leg, and apparently varicose veins which closed up at times but whether or not it was whether the bone was [illegible] affected or not it did not interfere with his riding. He latterly became gross and possibly dropsical and died aged 55 with what I suggest might have been an amyloid state. His son (the illegitimate Henry Fitzroy) died aged 18 or 17 from pulmonary tubercle, pulmonary lung, having had hemoptysis for two years, as also had Prince Arthur, Henry VIII's brother, the first husband of Catherine of Aragon. Henry VII had had a chronic chest disease so that potentially tubercle was a family complaint. It would be interesting to know more details about the death of Catherine of Aragon. The unfortunate Queen died after a short illness while being brought back to London. She had a swollen abdomen, either gaseous or dropsical, and eructations but no jaundice. Her body was opened by a candle maker, who said that she had a black growth on her heart. It is this sort of description that is so tantalizing, leaving as it does such a wide field for more pathological guesswork. Cardinal Wolsey's association with Henry VIII extended as far as sharing the same pathology, the Cardinal had syphilis. There is a contemporary letter which describes him sick. I think, from memory, at Hampton Court, with an ulcer of his scalp. This ulcer was quoted in the sixth charge made against him on his Attainder. It read:

> The said Lord Cardinal, knowing himself to have the foul and contagious disease of the great pox, broke out in him in divers places of his head, continually to your Grace's dishonour and common blowing upon your most noble Grace with his perilous and infective breath, to the great peril of your Highness and God of his infinite goodness had not better provided for your Highness. And when he was once healed of them he made your Grace believe that he had been as innocent as any other man.

Wolsey, as was the rest of the Court, was scared of catching the plague. A foreign ambassador, whose household had had a plague case, desired him he could not obtain an urgent interview with Wolsey except by shouting to the latter through a trumpet in the gardens of Hampton Court. His royal master was similarly frightened of the English Sweat, more frightened of it in fact than he was of his wife. Henry sent Anne Boleyn away from the Court when the infection hit the Boleyn house, but when which Catherine of Aragon's presumed adulterous conduct had matured Henry sent Bonivet and Dr Butts to see Anne, who later did suffer from the Sweating Sickness.

[illegible] Dr Butler also makes a brief appearance in Shakespeare's [illegible] same play [illegible] who was associated with the King in the [illegible] It is [illegible] to add that Henry V suffered from a [illegible] complaint namely piles but have remembered that [illegible] the [illegible] that might well have been applied to Tudor syphilis [illegible] statement which Clowes made in 1579 was correct (Clowes was the surgeon at St Bartholomew's Hospital) He wrote that he and three others had cured a thousand cases of pox in five years and that fifteen out of every twenty cases admitted to that hospital had the infection So perhaps after all syphilis and not piles was the more universal complaint

ACKNOWLEDGMENT

I wish to make acknowledgment to C J S Thompson for the financial references The figures have been taken from his *Mystery and Art of the Apothecary* published by The Bodley Head, 1929. The John of Arderne quotations are taken from the facsimile reproduction and translation produced by the Wellcome Historical Research Department edited by D Arey Power

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PLAGUE IN SHAKESPEARE AND PEPYS

BY

Surgeon Commander J W L CROSFILL, M D , Ch-B , R N.

THE Service medical officer has little or no opportunity of studying the early writings in medicine with very rare exceptions reprints do not exist and the originals are for the most part hidden away in either museums or special libraries Plague fortunately furnishes a unique example of a condition whose history can be studied from popular literature still easily available I have in this article taken a few quotations from Shakespeare and Pepys to illustrate the interest and information from a medical aspect that can be gathered from these writers

History is so badly taught or to be fair, was so badly taught in my day, that the impression one had as a schoolboy was that the so called Great Plague of 1665 was an isolated event in English history an epidemic which was ended by and as a result of the Fire of London in the following year No attempt was made to show that plague was in fact endemic in England and had occurred many times in epidemic form with a severity approaching or even exceeding that of 1665 In fact plague entered so much into the life of the citizens of the Middle Ages particularly during the sixteenth century that it threatened the economic existence of both individuals and the community at large It is for this reason that we find so many mentions directly or indirectly of plague in the ordinary literature and records of that period It is not to be wondered at that Shakespeare who died some fifty years before the Great Plague should have made so many references to it It is a curious fact that there is more to be learnt from one profession literature than from the faculty itself Very little was written by English professional men

The causation of plague remained a matter of speculation until the discovery of the organism in 1894 and the role played by the rat flea which had to wait until this century before being generally accepted. Throughout the centuries from classical times the infection was held to be, amongst many other suggested causes, an effect of bad air. The poisoning of the air or ground was believed generally to be especially dangerous when it arose from corpses, buried or otherwise. This belief was upheld as late as 1891 by Creighton and is so put forward in his *History of Epidemics*:

> Be as a planetary plague when Jove
> Will in some high-viced city hang his poison
> In the sick air.
>
> *Timon of Athens*, 4, iii.

Shakespeare here gives us not only the contemporary view that the infection of plague came from the air but, in addition, implies that the visitation was an expression of celestial wrath. The same idea was expressed when syphilis spread in epidemic form over Europe at the end of the fifteenth century. A Basle publication of 1496 has an illustration showing streams of celestial infection being thrown from the clouds, from the person of an infant Jesus, on to spotted sufferers on earth.

> Devouring pestilence hangs in our air
> And thou art flying to a fresher clime.
>
> *Richard II*, 1, iii.

To fly or not to fly was the great problem during plague times: those who could did so. Parliament and the Law Courts ceased their activities in London; the Court, whose presence meant work and sustenance to many working people, moved elsewhere. The clergy left their pulpits while the better known physicians followed their wealthier patients into the country. The countrymen were hostile to their unfortunate town fellow-countrymen; not unreasonably so, many of the refugees died on the way or brought infection with them. In spite of these difficulties the roads were thronged with the exodus:

> I find all the town almost going out of town, the coaches and wagons being all full of people going into the country.—*Pepys*, 21st June, 1665.

The civic authorities stuck to their posts and coped with the situation as well as the knowledge and means of the time allowed. A plague order issued in 1543 stated that the aldermen should "cause their beadles to set the sign of the Cross on every house which should be afflicted with the plague and there continue for forty days." In addition to this cross were painted, by a 1568 order, the words "Lord have mercy upon us." The cross (of St. Anthony) was originally painted in blue, but by 1603 had been changed to red. The forty-day quarantine period was later shortened to twenty days but reverted to forty during the epidemic of 1665. It is to be noted that the word quarantine is derived from the Italian for forty.

> "Write, Lord have mercy on us, on those three;
> They are infected; in their hearts it lies;
> They have the plague, and caught it of your eyes:
> These lords are visited; you are not free,
> For the Lord's tokens on you do I see."
>
> *Love's Labour's Lost*, 5, ii.

[illegible] using the language of plague to describe the [illegible]

[illegible] rest day that ever I did [illegible] the [illegible]

[illegible] Lake section of three [illegible] with [illegible]

[illegible] mercy upon us and three [illegible]

[illegible] 1665

The [illegible] lesions were the potential manifestations which were taken to foretell immediate death In a 1665 Practice of Physick these tokens are described as being red yellow or black the latter being the most deadly In the following quotations it is possible that Shakespeare was intending not plague but syphilis ergotism or some other fiery red skin lesion

The red plague rid you
For hanging not your language
Tempest 1 [illegible]

A red murrain o thy jades tricks
Troilus and Cressida 2 [illegible]

Nay the red pestilence strike all trades in Rome
And occupations perish
Coriolanus 4 [illegible]

At last order demanded that [illegible] honest and discreet matrons within every parish were to be summoned to search their duties being the testing of all [illegible] death and the reporting to the clerks of the parish whether such deaths were due to plague or otherwise It was not until 1629 that the weekly Bills of Mortality gave the figures for other diseases separately The searcher had to rely on his personal knowledge and observation of the corpse or from what the relatives or others told him It was not the statutory duty of the searchers to make any notification As the mortality from plague rose ignorant and untrustworthy women were given this task They were sworn to render a true report but it is not to be doubted that they were open to bribery Even a brief critical examination of the Bills of Mortality shows how inaccurate the figures must have been Once a house was declared infected it was shut up [illegible] appointed to ensure that no individual left that house The healthy were locked up with the infected until the house had been free from infection for the statutory forty days The outside watcher carried out the [illegible] and no doubt was equally open to bribery

Come I to find a barefoot brother out
One of our order to associate me
Here in this city visiting the sick
And finding him the searchers of the town
Suspecting that we both were in a house
Where the infectious pestilence did reign
Seled up the doors and would not let us forth
So that my speed to Mantua there was staid
Romeo and Juliet 5 [illegible]

The [illegible] carried white wands as a badge of office to warn people in the [illegible] that their [illegible] potentially infectious

[illegible] the Searchers with their rods in their hands coming from [illegible] I did overhear them say that his Black did not die of the plague [illegible]

The friar in *Romeo and Juliet* who was shut up was trying to deliver a letter but—

> I c[illegible] —here it is again —
> Nor [illegible] anger to bring it thee
> So fr[illegible] of infection
> *R[illegible] and Juliet* [illegible]

Pepys [illegible] difficulty in obtaining the services of a waterman. The fear [illegible] from letters was widespread and orders were issued to pri[illegible] ministers that letters were [illegible] and over vinegar. (W. G. Bell's *The Great Plague in London*. Bodley Head, 1924.)

Pepys was afraid that he had wasted good money in the purchase of a new wig:

> "September 3rd 1665. Up and put on my coloured silk suit very fine and my new perriwig, bought a good [illegible] but since but first not wear it because the plague is so in Westminster where I bought it, and I [illegible] wonder what will be the fashion after the plague is done as to perriwiggs, for none but [illegible] will dare buy any hairs for the hair, in the infection that it had been cut off the heads of people dead of the plague."

Shakespeare confirms the custom of the use of corpse hair for this purpose:

> Bef[illegible] they [illegible] in [illegible] of the head
> [illegible] of [illegible] [illegible]
> To [illegible] could [illegible] [illegible] head
> *[illegible] 68*
> [illegible] sweet spell sunny golden locks
> Which [illegible] [illegible] the wind
> Upon supposed fairness [illegible]
> [illegible]
> [illegible]
> *Mid[illegible] [illegible] 3 [illegible]*

Uncertain of the cause of plague, fear turned to panic with the mounting mortality. Not only was the infection thought to be in the air or arising from the corpses which were often to be found in the streets or else left in the open or all closed burial pits:

> Dying, [illegible]
> [illegible] shall be [illegible]
> *H[illegible] [illegible] 4 [illegible]*

but it was also believed that it could be carried by goods, letters, money and clothing. Passers by avoided each other in the streets:

> [illegible] have [illegible] one
> that hath had the pestilence.
> *Two Gentlemen of [illegible] 3 [illegible]*

Big business, Parliaments even the Law Courts, all ceased functioning in London itself. When the everyday necessities of life had to be bought the money was placed in vinegar instead of from hand to hand. The Court on which much of the prosperity of not inconsiderable medieval London depended, fled. During the 1563 epidemic Queen Elizabeth stayed in Windsor where a regulation was issued ordering a gallows to be erected there for the reception of any individual who had the temerity to arrive there from London or who dared to carry goods to or from the city; anyone found harbouring goods received from London was to be turned out of his house which was then shut up.

[illegible] at the same time that householders were to provide the materials for [illegible] which were to be kept burning in the streets an idea based on the electricity of the air and a practice dating from classical times. The fires made from wood pitch coals or redolent materials were serviced by watchers and had to be burned on three days each week at seven in the evening In 1665 one such fire had to be burned opposite every sixth house Their virtue was supposed to lie in the heating and drying of the air in addition to the purifying effect of pungent fumes

> To London to pack up more things and there I saw fires burning in the streets as it is through the whole City by the Lord Mayor's order all the way fires on each side of the Thames —*Pepys 6th September 1665*

Similar measures were taken in the houses for which sulphur was widely used The burning or strewing of herbs was a common procedure of medical domestic hygiene

> Being entertained for a perfumer as I was smoking a musty room
>
> *Much Ado About Nothing* 1 iii
>
> The smoke of juniper is in great request with us at Oxford to sweeten our chambers
>
> Burton's *Anatomie of Melancholy* 1621

Such herbes or simples were grown in the Elizabethan garden, together with salad herbs Otherwise they were to be purchased at the apothecaries who were allied with the Company of Grocers alternatively called the Peppers or Spicers As was common with most trades they congregated their premises, in a street called after a grocer by the name of Buckle

> This whole street called Bucklesbury on both the sides throughout is possessed of grocers and apothecaries toward the west end thereof —Stow's *Survey of London*
>
> Like woman in mean apparel and smell like Bucklersbury in simple time.
>
> *Merry Wives of Windsor* 3 iii.

The inhabitants of this street as also the tobacconists are said to have escaped the plague infection Tobacco was regarded as a prophylactic in accordance with which the boys of Eton were ordered to smoke being punished if they did not do so as the antiquarian Hearn relates on hearsay evidence So Pepys, affected by the sight of the red crosses in Drury Lane was

> put into an ill conception of myself and my smell so that I was forced to buy some roll tobacco to smell and to chew which took away the apprehension

This belief in the prophylactic value of a pleasant smell accounts for the 'pomanders' of the apothecaries and also to prevent gaol fever, for the present of a nosegay to the Judges

There were innumerable suggested remedies or preventatives ranging from arsenic in the armpits, through charms to vinegar This latter remedy was a survival from classical times and was favoured by Paré amongst others It was alternatively called esel We have seen how it was used to sterilize both rooms and letters it was also used internally

> [illegible] willing patient I will [illegible]
> [illegible] against my strong infe[illegible]
> Shakespeare *Sonnet* [illegible]

[illegible] constituents were [illegible] which [illegible]

> [illegible] this day [illegible]

A [illegible] is given in Gerard s Herbal

> [illegible] ten grams of Saffron the [illegible] one dram and a few Sa[illegible] Pimpernel water and [illegible] and thereof 12 grains [illegible] preserveth from the pestilence and expelleth it from those that are infected

Dr Nathaniel Hodges 1629 1688 one of the few English physicians to write on plague favoured an early morning anti plague electuary and sucked lozenges of myrrh cinnamon and angelica root during his visit He took a glass of sack before and after his dinner and in the evening drank himself to "cheerfulness excusing himself on the grounds that thereby he "encouraged sleep and an easy breathing through the pores all night Unfortunately his *Loimologia* 1672 is one of those publications which is not ordinarily available

Boghurst an apothecary who worked throughout the plague of 1665 has left an interesting account of the clinical manifestations of plague In his *Loimographia*, which manuscript has been reprinted by the Epidemiological Society of London he states that those patients in whom the buboes matured and discharged had the best prognosis When the buboes remained hard it was assumed that the corruption permeated inwards with associated detrimental effects In line with this belief was the practice of making issues—blisters wherefrom the corruption might discharge

> I am not glad that such a sore of time
> Should seek a plaster by contemned revolt
> And heal the inveterate canker of one wound
> By making many
>
> *King John* 5 ii

It will be seen how Shakespeare used the terminology of medicine to illustrate the circumstances or actions of everyday affairs

> thou art a boil
> A plague-sore an embossed carbuncle
> In my corrupted blood
>
> *King Lear* 2 iv

The sick were attended by nurses untrained low class women with neither knowledge nor experience It is probable that the greater number of the poorer sick got no attention at all from either nurses or physicians That these nurses were unscrupulous we may judge from the contemporary writing of the Dr Hodges previously mentioned and from the Rev Thomas Vincent, who wrote *God s Terrible Voice in the City* 1667

> But what greatly contributed to the loss of people thus shut up was the wicked practices of the nurses for they are not to be mentioned but in the most

[illegible]

[illegible]

Gold [illegible]

Will [illegible]

Pepys relates that patients [illegible] sick clothing into the streets

> O Lord he will [illegible] diseases [illegible]
> sooner caught than [illegible] the taker runs presently mad
>
> *Measure for Measure* [illegible]

Shakespeare voices the common knowledge when he refers to the tokens as being a sure sign of impending death

> On our side like the tokened pestilence
> Where death is sure
>
> *Antony and Cleopatra* 3 x
>
> He is so plaguy proud that the death tokens of it
> Cry No recovery
>
> *Troilus and Cressida* 2 iii

The seventeenth century saw the end of epidemic plague in England Of its tragedy and horror the desolation and social upheaval the courage and devotion of individuals the full story is hidden away in the parish registers the churchwardens accounts much cannot have been recorded The dead by their scores of thousands lie beneath the buildings of modern London The Passion Play at Oberammergau is a modern reminder of the epidemic there in 1633 having been started as a kind of penance for the infection

I have tried to show how much can be learned from Shakespeare and Pepys concluding by quoting the poet with reference to both thus

> There is a history in all men's lives figuring the
> nature of the times deceased

I have refrained from quoting from Defoe's *Journal of the Plague* since it is not written with personal knowledge Defoe compiled what purports to be an eye witness account of the 1665 epidemic obtaining his information from publications and no doubt from the stories of survivors In spite of a few errors and fabrications it is in fact an excellent account of the epidemic It contains the various regulations that were issued the Bills of Mortality are critically discussed and it gives a graphic description of what the life of London must have been like at the period In spite of its lack of clinical description it is a work—for story would be an inadequate description—well worth reading

HOSPITAL SHIPS IN THE SECOND DUTCH WAR

BY

DAVID STEWART

So far as can be discovered, the first country to employ hospital ships was Spain, and at least two of these vessels sailed with the Armada in 1588. A certain amount of information is available about one of them, the *Saint Peter the Great*, she was a ship of about 550 tons burden, and carried a crew of 40 seamen, 100 soldiers, and a hospital staff of 40. She also had on board medical stores to the value of 6,000 ducats, which was about £2,000 or £3,000 in English money. These details about this vessel are available because she was wrecked, and the local authorities had to make reports on her condition to the Privy Council (Laughton, 1894).

The English Government, however, was not interested in this type of ship and found little employment for them for many years. It is true that Shaw (1936) mentions that the *Goodwill* was used as a hospital ship in 1608, but nothing seems to be known about her tonnage, or of the strength of her ship's company. Nevertheless, it is of interest to know that this was the first ship of this class to be employed in the service of the Navy.

Again, through some casual references to it, we know that a hospital ship was attached to Penn's squadron during the West Indies expedition of 1654. The troops were landed at Hispaniola (St. Domingo) and behaved disgracefully; it must be confessed that some of their officers did not show them a very good example. One of these indeed conducted himself so badly that he was brought before a court martial on a charge of cowardice. This man was the adjutant general of the force, a certain Captain Jackson, who somewhat luckily was only cashiered and not sentenced to death. He had however to suffer the additional indignities of having his sword broken over his head, and of being sent aboard the hospital ship in irons, there to work as a swabber to keep it clean for the benefit of those who had been wounded through his cowardly conduct (Venables).

There is no evidence that hospital ships were employed during the first Dutch War. Whenever Commonwealth ships found it necessary to evacuate their sick and wounded, they were compelled to come into port to do so. This would have been unnecessary if hospital ships had been in commission.

Despite the fact that the government of the day did not consider hospital ships of much use in wartime, their value was not entirely unappreciated. At least one contemporary writer of repute said:

> There is nothing more necessary than that every squadron of such fleets should be very sufficiently furnished with them (hospital ships), and that these ships should be appointed and known before the fleet puts out to sea, and that they be fitted with convenient cabins for the receipt of sick people, and every ship provided with an able chirurgeon and his mate, to be continually resident aboard.

[illegible] his chest every way well furnished so that [illegible] either [illegible] or common officer shall happen to fall sick [illegible] ally of a [illegible] suspected to be infectious and contagious [illegible] of the [illegible] be speedily and with the first opportunity [illegible] received [illegible] which is appointed for it whereby the [illegible] not only be [illegible] in the sound but likewise the latter kids [illegible] into by [illegible] Hacker p 64)

The reign of Charles II is not generally considered to be particularly brilliant [illegible] in the history of the Royal Navy and in the administrative side Pepys and others had good grounds for their complaints of the gross corruption manifest in every department Yet at this period the Navy had a better system of disposing of the sick and wounded than any that had ever been devised under the Commonwealth It is true that the system broke down, but this was due entirely to the shortage of money which was a frequent cause of trouble during that reign Among other improvements introduced was the regular employment of hospital ships with the fleets on active service, and these proved of the greatest value in enabling warships to evacuate their casualties without having to come into port to get rid of them

The first information that we have about these Restoration hospital ships is to be found in a letter from James Pearse the Surgeon General of the Navy, he writing to Pepys from the *Royal Charles* on the 20th March asks that the hospital ship should be sent down to the fleet immediately, fully equipped for service (C S P D 1664–5, p 280) This letter was supplemented by another two days later from Sir William Coventry in which it is stated that the Council of War wanted three water ships and two hospital ships with the fleet as soon as possible (C S P D 1664–5 p 280) Evidently some difficulty arose in getting these vessels ready for several weeks later—18th May—Sir William Coventry was still asking that the hospital ships might be sent to join the fleet (C S P D 1664–5 p 370)

The two ships that were selected for this duty were the *Joseph* a vessel of 101 tons with 4 guns and carrying a crew of between 30 and 40, and the *Loyal Catherine* of 289 tons, and 35 men (Shaw) Probably the delay in the first place in getting them ready for service arose from the difficulty in deciding what medical equipment was necessary for these new units and afterwards in collecting it together At the same time it had to be determined what medical personnel should be carried When all these points were finally decided it was laid down that the medical staff should consist of one master surgeon assisted by three or four surgeons mates with two or three landsmen to act as cooks and nurses (Shaw) The surgical equipment and drugs which were put aboard the hospital ships in the surgeons chests and the ordinary ship s stores and provisions were supplemented by the following articles to increase the comfort of the patients and to improve their diet *

2 or 3 dozen body rugs pillows
About 20 pairs of old sheets
About 2 dozen old sword scabbards
About 20 lb of fine tow
6 or 8 bushels of charcoal in cask
10 or 12 yards bayes for striphs (Shaw—bandages)

About 1 Dyen pails
As many cups
2 dozen large wooden platters
8 or 10 dozen wooden dishes and spoons
About 3 dozen wooden bowls
6 or 8 dozen earthern bottles
Twice as many corks
1 lb. whited brown thread
About 3 dozen needles of several sorts
8 or 10 000 pins
2 or 3 pieces of broad tape
5 or 6 pieces of narrow tape
2 bed pans
2 large chafing dishes
1 dozen lanthorns
2 brass or copper kettles containing 4 or 5 gall
2 skillets each containing 2 quarts
1 dozen tin saucepans
2 lb. Castle soap
2 anchors brandy
1 quarter cask vinegar
5 or 6 bundells oatmeal
About 1 quarter French barley
2 to 300 lb. rice
2 bushels fine flour
3 cwt. sugar about 6d. a lb
As many currants
2 chests of candles.
¼ lb. cinnamon
3 lb. mace
2 lb. nutmegs
4 oz. saffron
1 dozen quires thin shew paper
6 wide candlesticks

The above list was published by Shaw in the *Mariner's Mirror* for 1926. He there points out that although it was somewhat crude and vague it showed a real advance in the amenities given to sick and wounded seamen in time of war.

There is undoubtedly an atmosphere of vagueness hanging about this document: the exact numbers of any one article are not specifically laid down, and it would seem that here was a heaven sent opportunity for some dishonest storekeeper to make a little " on the quiet. It is possible, however, that this is the list that was sent by the governors of the Barber Surgeons Company to the Navy Commissioners, and contained their suggestions of the number of things required for equipping a hospital ship. No doubt when the appropriate authority got busy on this list the number of items on charge became much more clearly defined, and the officer responsible for their safe custody was left in no uncertainty as to the numbers of articles for which he had to account.

There is of course another possibility that must not be forgotten: hospital ships varied in size and therefore varied in the number of patients that they could carry. From this it would follow that the number of articles required

[illegible] included in one ship would be many more than [illegible] [illegible] vessel For this reason the numbers in [illegible] [illegible] have to be rather elastic The articles in this list may appear to be somewhat crude but it has certain characteristics curiously reminiscent of the equipment sanctioned for an advanced dressing station in the Army [illegible] to-day Certain items seem to deserve further comment One would like to know why two dozen sword scabbards were considered desirable [illegible] only reason for them that occurs to the author is that they were used as splints One had always presumed that before the days of modern antiseptics the manufacture of pins was a somewhat slow process and that they were therefore rather expensive if that were the case the allowance of seventy [illegible] was a very generous one It may possibly be thought that the allotment of spices was rather generous but it must be remembered that the victuals issued to the sick were identical to those of the ordinary healthy seaman The rations were made up mainly of coarse salt meat and salt fish of dubious quality spices would be invaluable in disguising their taste and making them more palatable and attractive to a sick man Taking the list as a whole I think that we can come to the conclusion that a good deal of thought had been given by somebody to the matter and that it was by no means an unsuccessful solution of the problem of how to ameliorate the lot of patients on board hospital ships

The appointment of the surgeons to these two ships was made not without difficulty Pearse and Coventry obviously working in concert in the letters mentioned above recommended a certain Mr Robinson for the post of master surgeon to one of these vessels This suggestion did not get a favourable reception (C S P D 1664–5 p 395) and the Navy Commissioners asked the governors of the Barber Surgeons Company to nominate suitable candidates to fill the position of senior surgeons in the two hospital ships On the 5th April the authorities of that company replied to the Commissioners saying that they had selected Edmund Higgs and William Smart for this service they were both experienced surgeons who had been employed during the first Dutch War and were therefore fully qualified to undertake this important work (C S P D 1664–5 p 351) That no doubt would have settled the matter if Surgeon Hugh Euler R N had not been out of a job This officer had been unfortunate he had been surgeon to the *Norwich* when she was wrecked in December 1664 and on the 6th April in the following year had been appointed by the Duke of York the Lord High Admiral to a similar position in the *Portsmouth* Again he was unlucky as he was unable to take up the appointment on account of sickness (C S P D 1664–5 pp 388 and 396) Whether because people were sorry for him or because he had friends in the right quarter when those hospital ship appointments become available he was made Master Surgeon of the *Royal Katherine* which was the larger vessel This left now but one vacancy which was given to Smart and on the 4th May the Master and Wardens of the Barber Surgeons Company certified that the drugs and instruments supplied by Selby the apothecary for Surgeon Smart

[illegible] of the hospital ships were satisfactory in both quality and [illegible] (C S P D 1664–5 p 384)

[illegible] when the hospital ship *Royal Katherine* joined the Fleet is [illegible] Fortunately for the wounded it was before the battle off Lowestoft in June 1665 and she was able to evacuate the casualties from that action The number of wounded was about 400 (Montagne) so no doubt the *Royal Katherine* was loaded to capacity or even beyond it She set sail for Harwich but unfortunately was held up by head winds and took six days to make the passage Her supplies must have been pretty well exhausted because Rider her master surgeon wrote to Samuel Pepys to let him know that he had used up all his linen and required a fresh supply He also required four more assistants and some cooks because it would appear the wounded were going to be kept aboard the vessel and not landed (C S P D 1664 5 p 428)

Not a great deal of information about the activities of the *Royal Katherine* during this summer is available Towards the end of August she brought at least a second load of 200 men into Harwich (C S P D 1664 5 p 541) and about the 20th September she took a cargo of 276 sick into Deal (C S P D 1664–5 p 568) It may be presumed therefore that she was regularly and actively employed throughout the whole summer

Less is known about the *Joseph* but there is some evidence to suggest that she was not a very happy ship She started badly as late as the 14th of June she had not joined the Fleet and James Watkin—probably her master was asking for warrants for the boatswain gunner and carpenter (C S P D 1664–5 p 425) A little later she was definitely in trouble because her Master had refused to allow her crew to be mustered (C S P D 1664–5 p 474) Taking all these things into consideration it is extremely doubtful whether this hospital ship did a great deal of work during the summer of 1665 Presumably she must have done a certain amount as the Government was charged with her hire from the 6th June until 6th December (C S P D 1665–6 pp 128–9) but of course this is no assurance that she was actually used Plenty of governments have been charged with and have paid for things they never actually employed One thing is certain both the *Royal Katherine* and the *Joseph* had ceased to operate by the 28th October and that for a reason very characteristic of the period—there was no money to pay for them (Pepys) So as often happened in the reign of Charles II a good scheme broke down for the want of cash

During this year an interesting suggestion was put forward for the employment of a special type of hospital ship As is well known 1665 is notorious in English history as the Plague Year and fear of this disease struck terror into the hearts of men There were no naval hospitals and the civil population refused to take in the sick seamen in case they were infected likewise the captains of His Majesty's ships refused to receive on board men who had been sick on shore because they might bring infection into vessels under their command To deal with this impasse it was suggested that a special 'plague ship' should be employed to receive cases of suspected plague from the

Fleet and [illegible] the difficulty of the civil population in trying to take them (Evelyn) Nothing came of this interesting proposal which was made by the great diarist John Evelyn one of the Commissioners for the sick and wounded seamen The convalescent men whom their captains refused to take back were packed on board one or two captured vessels (C S P D 1665–6 p 22) this prevented deserting and they were handy if their captains should relent and agree to admit them into their ships As both hospital ships had ceased to operate by the end of October it became necessary to devise some extemporized means for the removal of the sick from those ships that could not go into port For this purpose various types of small vessels were employed and at least on one occasion fireships took sick men from the Fleet into Portsmouth (C S P D 1665–6 p 53)

However it evidently became obvious that things could not go on in this hand to mouth way for on 23rd November 1665 Evelyn wrote to Pepys that he had been told a hospital ship was absolutely necessary (Marburg, p 95)

This letter must have had some effect for although not a great deal was done the *Royal Katherine* and the *Joseph* were continued in hire but as usual the latter was in trouble On the 15th February 1666 it was reported that her books bore more than the 45 men for whom she was victualled and this could not be permitted without orders from the Board (C S P D 1665–6 p 249) The matter was evidently settled because a few days later certificates were produced showing that her accounts had been cleared at the Victualling Office and that she was ready to sail (C S P D 1665–6, p 257)—and that is the last we hear of her as a hospital ship It would appear that the king got poor value for his money when his servants hired the *Joseph* she was always in trouble and there is no evidence that she ever received any of the sick or wounded of the Fleet

On the other hand the *Royal Katherine* was again at work and assisted at another important engagement for it is recorded that she brought in one hundred wounded after the battle off the North Foreland in the beginning of June 1666 (C S P D 1665–6 p 436)

From this date onwards there appears to be a complete absence of references to hospital ships It is possible of course that these may have been lost but it is much more probable that the vessels themselves were paid off and that another system was adopted of evacuating casualties from the Fleet After the battle of the 25th July small vessels only were used to bring the wounded into port The ketch *Pelham* arrived at Southwold on the 26th July with 30 wounded men (*London Gazette* No 74 26 30th July 1666) On the 30th a boat load of casualties came into Dover (C S P D 1665–6 p 591), and on the 31st a dogger brought 17 more into Aldborough (C S P D 1665–6 p 594) On the 1st August two ketches took other wounded into Yarmouth (*London Gazette* No 72, 2–6th August 1666) and so they go on but there is never the slightest reference to a hospital ship I think therefore that we must assume until further evidence becomes available that during the last year of the second Dutch War a change of policy occurred—probably on the grounds of economy, that the hospital ships were discharged and that the evacuation of

[illegible] from the Fleet was done by small vessels which conveyed the [illegible] to their destination as quickly as possible but had no facilities for [illegible] such as were available in the hospital ships of the period

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Clinical Notes and Cases

A CASE OF "DOPE" POISONING

BY

Surgeon Lieutenant-Commander K J R O'CONNOR R N

THE following case of a fortunately rare type is submitted as an interesting case not frequently met with in naval circles It is always liable to occur however in air stations dockyards and establishments where dope is used and is published to emphasize that the precautions laid down in Admiralty Fleet Order 3470/45 must be rigidly enforced

Case history —The patient a naval airman aged 20 reported on 8th June 1946 complaining of dyspnœa and general malaise [illegible] weeks duration He looked delicate and pale with a waxy complexion

Past history —Scarlet fever at the age of 8 years No history of tonsillitis or rheumatic fever

He had been employed for some months as a messenger at an air station and during January and May 1946 he had been painting bicycles with a solution of paint and "dope" (cellulose acetate and solvent)

On examination —Temperature 99 4° F pulse rate 84 per minute

Nothing abnormal was noted in the chest except a systolic murmur at the base no rales were heard and the breath sounds were vesicular One of the anterior cervical glands on the right side was enlarged but discrete Nothing abnormal was detected in his mouth or throat but the tongue was furred The axillary and inguinal glands were not enlarged The abdomen appeared normal the glands were palpated and liver and spleen impalpable The patient's appendix had been removed when he was 16 years old Central nervous system knee jerks brisk flexor response no clonus no abnormal detected There was no œdema of his ankles and the urine was normal

After [illegible] intestinal treatment with [illegible] studies. In commencing [illegible] [illegible] scums for about five [illegible] [illegible] solution appeared to [illegible] [illegible]

[illegible] at the laboratory of [illegible] [illegible]

[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	71
[illegible]	3,900 per [illegible]
[illegible]	Polymorphs 30 per cent
	Lymphocytes 4 per cent [illegible]
	Myelocytes 1 per cent [illegible]
	Eosinophils 2 per cent [illegible]
	Basophils 3 per cent

[illegible]

[illegible] is present the effects are much [illegible] simple severe anæmia an aplastic [illegible].

[illegible] probable that this man's condition [illegible] chlorinated hydrocarbon fumes.

[illegible] ascertainable about the chemical [illegible] follows:

Base	Cellulose
Colour	[illegible]t (iron oxide, &c.)
Flexibility	[illegible] (formula patented and not known)
Fluidity	Spirit: benzene, benzol, methylene, methyl [illegible]
Acetone does [illegible]	to be a constituent of dope

An unfavourable feature of this patient's illness is that despite repeated whole blood transfusions and a transplantation of bone-marrow only temporary improvements of his blood picture have occurred. No precursor blood cells have been appearing in blood films taken after these transfusions. After weekly transfusions of whole blood his hæmoglobin has been raised to over 70 per cent.

The intervals of blood giving up to 24th September, 1946, had been increased to fourteen days. At the end of August, 1946, his general condition was very good and he was looking and feeling well and allowed up. On 14th and 29th August, 1946, transfusions at the hospital resulted in severe reactions and the doctor in charge of this case informed me that the administration of 1/6 gr. of morphine and ½ gr. of ephedrine by mouth given twenty minutes before largely prevented this unpleasant sequel to the transfusion (? Rh factor).

The patient was discharged from hospital on 14th September, 1946, and after a few days on the sick list at the Air Station was granted one week's sick leave. He was conveyed back from his home to this station by ambulance on 23rd September. Arrangements were made for blood to be taken for a further examination at the hospital on that date, and the result was as follows:

Hæmoglobin	60 per cent.
Red blood cells	3,430,000 per c.mm.
Colour index	0.87

The rating was discharged to a Royal Naval Hospital by ambulance the following day; he was due for his next whole-blood transfusion by a Group O (IV) donor on 26th September.

Follow-up notes by the naval hospital read as follows:

This rating was admitted on 24th September, 1946, with a diagnosis of aplastic anæmia. He was feeling very well and complained only of slight breathlessness on exertion.

General examination: nil abnormal detected save anæmia—see list of blood counts.

Treatment: transfusions at about three weekly intervals. The patient is given sick leave and ferri et ammon. cit. in between transfusions.

During November, 1946, patient had a febrile attack with signs suggesting a patch of consolidation at the base of the right lung. After transfusion on 9th December he went on fourteen days' sick leave on the 16th. He continued with periods of sick leave alternating with admissions for further transfusions until March, 1947, when he developed follicular tonsillitis and otitis media, for which he was treated with penicillin. Also given anahæmin injections. He was again discharged to sick leave after transfusion on 2nd April, 1947.

From then until October, 1947, he had been having periods of fourteen days' sick leave alternating with periods in hospital for blood counts and transfusions. His general condition remains unchanged; he has no complaints except for slight breathlessness on

exertion [illegible] any sign of [illegible] examination [illegible]

Blood Counts and Transfusions

				Red cells per c mm	*Haemoglobin per cent*	[illegible]	*White cells per c.mm*
3 10 46	2 pints	9 10 46		3 520 000	74	1 04	8 800
24 10 46	1½ pints	27 10 46		3 240 000	64	1 0	4 200
9 11 46	2 pints	12 11 46		4 580 000	92	1	4 800
8 12 46	1½ pints	14 12 46		4 250 000	100	1 1	9 400
9 1 47	2 pints	13 1 47		3 800 000	83	1 07	3 800
24 1 47	1 pint	28 1 47		3 660 000	70	1 03	5 600
8 2 47	2 pints	12 2 47		4 890 000	94	0 98	
7 3 47	1½ pints	11 3 47		3 820 000	80	1 04	7 000
30 3 47	2 pints	2 4 47		4 329 000	88	1 1	4 800
5 5 47	1½ pints	7 5 47		2 800 000	70		
21 5 47	2 pints	22 5 47		4 390 000	82	0 85	
22 6 47	2 pints	26 6 47		4 830 000	80	0 82	
26 7 47	1½ pints	29 7 47		2 900 000	80	1 0	
8 8 47	1½ pints	8 8 47		3 120 000	64	1 02	
2 9 47	2 pints	4 9 47		3 610 000	78	1 08	
		23 9 47		2 330 000	60	1 04	5 200

[1] There is no evidence of regeneration according to laboratory reports

Discussion

It has long been known that benzene poisoning is a cause of aplastic anaemia this substance being toxic to the granular leucoblastic and thrombo blastic tissues (Jameson and Parkinson 1944) An interesting point is the short exposure that this patient had with the terrible effects—an awful warning to all industrial users of benzene compounds

A further point to note in all these cases is that, due to the scarcity of leucocytes the patient is virgin soil to any infecting organism This patient contracted gonorrhea but fortunately did not have too difficult a time in overcoming the infection although the treatment gave rise to some misgivings

Acknowledgment

I wish to thank Surgeon Commander Greenstreet R N , for permission to publish this case Dr Hocking of the Royal Cornwall Infirmary Truro, for the pathological investigations and Surgeon Commander Gillman-Wells R N , for the follow up notes and laboratory reports

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A CASE OF PULMONARY TUBERCULOSIS PRESENTING AS A TOXIC CONFUSIONAL STATE

BY

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Medical Specialist R N Hospital, Malta

AND

Surgeon Lieutenant HUMPHRY OSMOND, R N ,
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Toxic confusional states are notoriously hard to evaluate and the following case illustrates the pitfalls which beset the clinician s path, making a firm diagnosis exceedingly difficult at first indeed it can frequently be made only following prolonged observation

Case history —The patient a Maltese steward aged 19 who had served for two years in the Royal Navy was a typical Latin of stocky athletic build

18th June 1946 He was admitted to the observation ward 90th Military Hospital Malta because he had been acting queerly and talking nonsense for about a week He had said that a rash which he had on his neck was caused by the moon and on one occasion tore up his cap and threw pieces of it on the deck Before this he had always been quite normal and his medical history sheet was clear His strange behaviour resulted in a diagnosis of confusional state being made in his ship and he was sent ashore for observation

On admission it was noted that his general physical condition was poor and a full but cursory physical examination showed no gross abnormality He was apyrexial

His mental condition was summarized in this way

Appearance Tousled smiling but pallid Lounging in a chair

Activity Fidgety and restless

Manner Vague and unspontaneous fairly co-operative but inclined to be suspicious

Speech Slurred but not retarded inclined to mumble to himself such words as "grape" and "women" repeatedly and was sometimes incoherent

Thought Meagre

Insight Little

Mood Apathetic but fairly cheerful inclined to be silly

Orientation He was certainly spatially disorientated at times and thought he was working in a galley

Delusions Apart from his disorientation no other false perceptions or beliefs were discovered but contact with him was poor

During the first week following admission his mental condition was unchanged but his physical condition had obviously deteriorated He was still apyrexial but his weight had fallen from 112 to 107 lb and a further physical examination on 26th June showed abnormal physical signs at the right apex An X ray taken shortly afterwards suggested tuberculous infiltration in both lungs and acid fast bacilli were found in his sputum.

Family history —A superficial examination of his psychiatric history revealed that his father committed suicide by hanging after a gambling misfortune thirteen years ago The patient was the youngest of six siblings the rest of whom were alive and healthy his mother also was alive and well His school record was broken but this is not unusual in Malta and his work record was steady After joining the Service in July 1944 he appears to have liked his work and not to have been in any serious trouble

On admission the possibility that this reaction was hysterical or schizophrenic was considered but there were no typical features of either of these illnesses and when his lung lesion was discovered he was diagnosed as a toxic confusional state. In the absence

of fever [illegible] misleading and this diagnosis might [illegible] en all had [illegible] heard told of a similar case by Professor [illegible] e Malta [illegible]

[illegible] R.N. Hospital Malta on 4th July 1947 for appropriate [illegible] temperature was 97·8° F., pulse rate 84 per minute [illegible] He was then restless and hollow-eyed quite co-operative [illegible] nervous system involvement. Examination revealed [illegible] with persistent fine râles on auscultation [illegible] Weight 107 lb. Erythrocyte sedimentation rate [illegible] X-ray examination was reported on as follows: [illegible] and zone with cavitation in right interspace [illegible]

Lower [illegible] results.

Complement [illegible]

Sputum: Z.N. [illegible] numerous tubercle bacilli present. Kahn test was [illegible]

He was [illegible] the tuberculosis ward as far as could be managed [illegible] consisted of restlessness and a tendency to wander about.

The psychiatric [illegible] while he was in R.N. Hospital Bighi. His mental condition still showed [illegible] disorientation; he was vague, friendly and somewhat fatuous. On 8th A[illegible] he [illegible] and after he had wandered away one afternoon and gone [illegible] the [illegible] bathing beach he said that he had walked about the beach because he wished to get cured. He added that he felt nervous and ascribed this to being in bed. He looked plump and was inclined to be impatient and complain about the length of his illness. [illegible] he showed some understanding of its serious nature, although he giggled frequently and laughed inanely.

From the beginning his physical condition improved steadily and in five weeks he put on 6 lb., his pulse settled and he remained almost apyrexial with rare spikes to 99° F. On 17th September he had his last positive sputum. His silliness and shallowness disappeared as he got better and he obtained good insight, describing how in the very beginning of his illness he had seen the hands of a clock on the bulkhead begin to move backwards. His command of English, which had been poor when admitted, returned.

In these circumstances and in view of the cavity in the right lung and apparent lack of activity in the left side, a right artificial pneumothorax was induced. By 14th November the cavity was nearly obliterated but there was one adhesion preventing a really satisfactory collapse of the lung. Thoracoscopy and pneumolysis were carried out on 9th December with satisfactory results and complete obliteration of the cavity. At this point it was decided that he was physically fit enough to proceed on sick leave.

On 27th March 1947 physical examination revealed no sign of activity in the lungs; temperature 98° F., pulse 84 per minute, weight 122 lb. X-ray examination was reported on as follows: There is now 75 per cent collapse of the right lung with satisfactory compression of the cavities. No evidence of adhesions. There is a slight mediastinal shift to the left. No evidence of infiltration in the left lung. Sputum: No acid-alcohol fast bacilli seen. Erythrocyte sedimentation rate was 5 per 200 mm. in one hour, 15 per 200 mm. in two hours (Westergren). Blood count showed 5 000 000 red cells per c.mm., haemoglobin 104 per cent, colour index 1·04 and white cells 8 900 per c.mm.; differential count showed 60 per cent polymorphs, 36 per cent lymphocytes, 3 per cent monocytes and 1 per cent eosinophils. Exercise tolerance test: 2½ miles in forty-five minutes with rectal temperature of 98·8° F. before the walk and on return dropping to 98·6° F. after five minutes and remaining at that figure after half an hour.

From the tuberculosis aspect he is at present considered to be quiescent and is at home attending fortnightly for artificial pneumothorax refills. He has recently taken up employment as part owner and manager of a tea shop.

27th March 1947 He was seen shortly before leaving hospital he looked smart spruce plump and well—there was no evidence of psychological illness

10th October 1947 He was seen again and although rather dissatisfied with his part time work in a tea shop with his brother and planning to go to England he appeared fit and well

DISCUSSION

It is clear that the patient's lack of knowledge of English which proved to be a symptom greatly hampered interrogation and therefore diagnosis Had more attention been directed to his physical condition at the onset rather than to his more spectacular mental symptoms the full diagnosis might have been reached more quickly This case shows that a careful recording of hallucinatory experiences can be of considerable value as a clue to the true nature of an illness The visual hallucination of the clock moving backwards was particularly suggestive of a toxic confusional state rather than of a schizophrenic illness By the time he reached hospital his disorientation and emotional disturbance was too great to gain much co operation from him and so the content of his hallucination was not discovered until he was so well that it mattered little except to confirm diagnosis

The absence of clinical indications of toxicity was remarkable in view of his apparent high resistance as shown by his rapid improvement and favourable progress which has been maintained so far Differential diagnosis lay between a schizophrenic reaction with a relatively mild active tuberculous infection, or a toxic confusional state with little evidence of intoxication apart from his mental symptoms which were not reported in sufficient detail to be of much assistance

SUMMARY

A toxic confusional state occurring in a case of pulmonary tuberculosis is described and the difficulties of diagnosis are discussed

ACKNOWLEDGMENT

We wish to thank the Medical Director General of the Navy and Surgeon Rear Admiral O D Brownfield *C B O B E* K H P Medical Officer in Charge, Royal Naval Hospital Malta for permission to publish this case

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A CASE OF DELIRIUM TREMENS

An Account by a Patient

WITH AN INTRODUCTION BY

Surgeon Lieutenant-Commander C G HUNTER R N

ONE sometimes sees the results of alcoholic excesses in the Service but it is seldom that a patient can give a clear account of his imaginary experiences during such a state and therefore, it is thought that the following report will

be of some interest to readers The patient was admitted to hospital on 7th January, 1948 No organic disease was found in any system and he was discharged to duty on 14th January 1948

Naval scholastic and social history were without evidence of psychotic episodes He "lived at" the canteen from October until New Year's Eve with a particularly heavy bout of drinking over Christmas

His ship sailed from Bermuda on 2nd January and he was observed to be acting strangely on 3rd January He was admitted to the sick bay on Monday, 5th January and it is very doubtful if he had any contact with the persons mentioned in his story He wrote this account on 8th January the day after he reached R N Hospital, Bermuda, by air At this period he firmly believed that the incidents did occur but after rest and further thought stated that it must have been imagined He accepted an explanation of alcoholic poisoning as being the cause of his behaviour

The Patient's Story

"As the facts leading up to my being sent to hospital are of a rather rambling and scattered nature when explained by word of mouth I am endeavouring here to correlate them into a coherent and readable whole

"This paragraph is I must admit mostly conjecture but taken in conjunction with facts explained later must be substantially true Some time before Christmas 1947 the secretary of a club where the ship was visiting wrote to the Captain explaining that the club intended to give a concert and social evening for the ship's company The big event was to be a charade entitled The Devil or the Madhouse based on a drunk being given the opportunity of joining up with the Devil or going to the madhouse. The club asked the Captain to nominate someone for the central figure and above all to keep everything very secret They must also have asked for name and address of next of kin My name was accordingly forwarded—without my knowledge of course The Secretary must then have cabled my mother asking full details of family names nicknames place of birth &c He must have enjoined her to secrecy and asked her to co operate my mother certainly *did* co operate as will be seen

In due course we were invited to the club I went but I think some subterfuge would have been employed to get me there if I had not intended going The party was a great success and a great deal of money must have been spent on the fittings all over the room were tiny model insects and animals—on the walls ceiling everywhere I discovered later that these were wired so that the touch of a switch would animate them Whether or not they were concentrating on me I don't know but during the course of the evening perhaps I would glance casually at an insect on the wall as I looked away the creature appeared to move but seemed lifeless when I looked again until I glanced away The evening passed as so many of these evenings do with plenty of drink and hilarity I don't remember being singled out for attention more than any one else although several people asked my name

I returned on board between 2330 and midnight and turned in—not slinging a hammock but lying on a camp bed Just dozing off I heard two people come into the mess but did not open my eyes surmising they were liberty men or watchkeepers Shortly afterwards I was fully awakened by squeakings and scamperings on the deck and voices whispering also a swishing sound as though someone was lightly brushing sand over the deck As soon as I sat up in bed all was quiet This happened many times and then when I put my head back on the pillow a whispering voice strangely like my mother's it seemed to me came from the pillow itself saying into my ear This is Mother come home dear come home By now I was getting jittery and after sitting up about three times and the same thing happening on lying down again (in addition,

I had seen noticed a grotesque mask on the bulkhead by the police [illegible] I opened my eyes each time I looked at it) I decided I had had enough I felt the [illegible] the [illegible] pronouncement of jibes from two whispering male voices and went to the [illegible] for a cold shower Every time the voices were taunting me with such phrases as "I don't think you'll get away We've come for you" &c I dried myself as quickly as possible and returned to the mess The voices were there when I entered and carried on their taunts and jibes I shook one of my messmates and said "See I think I've got 'em Come up to the sick bay with me" We went there and shook the C S B P O and I realized that while my friend had been awake in the Mess with me there had been no speed or movement I told the Chief I was hearing and seeing things that were not there and needed a very strong opiate to send me to sleep at once After a couple of questions he told me to turn in in a lower cot which I did and he gave me two phenobarbitone tablets so I turned out the light and tried to go to sleep Within a few minutes the voices were there again—one in each ear—though when I switched on the light there was nothing to be seen The time was now about 0050 This happened three or four more times so I switched the light on and shouted for the C S B P O and asked him for something stronger as sleep was still impossible He gave me a bromide and another phenobarbitone tablet after which I lay back and went to sleep

The next thing I remember is waking still in my cot (although I suppose I should have entered that I *had* been in a two berth Pussers) in a large hall filled with about 200 people many in costume and mask I was not in a fully conscious state everything was very hazy and I could not recognize faces very well but my brain could easily grasp what was going on I was informed that I was a habitual and incurable drunk and that the authorities concerned intended getting me in a lunatic asylum the next day The only way of avoiding this fate was by joining up with the Devil's Own or some such name to which they all belonged They then proceeded to show me the delights enjoyed by these people A band composed of pretty girls was playing music and a few couples dancing my relations were brought to my bedside one by one and introduced each imploring me to alter my mind and join them—it didn't occur to me at the time how incongruous it was that I was the only member of the family not in Devil's Own ! The staff work for this particular gathering must have been excellent my relations all acted and spoke as they would have done in real life I recognized them all and they used intimate exclamations that nobody outside the family could have known My mother must have worked prodigiously to supply information ! It was this number that almost convinced me of the reality of the proceedings After this I was wheeled out on to a lawn where a company of sailor girls performed to the accompaniment of the band Finally I was wheeled into a rumshackle brick building from whence issued horrible groans screams and caterwauling this I was told was the lunatic asylum in which I should be put the next day if I did not cast my lot with the Devil's Own

After reading through the above I find that there are discrepancies in the dates and times Thinking back I find that I missed both the Medical Officer and myself on an important fact I remember now that the night in which I went to the sick bay was *not* the night of the party but the one before In other words the Saturday night before arriving in port The sound winds had been put in previously and secretly by the ship's staff The footsteps I heard must have been *bona fide* watchkeepers What brought this back to me was that thinking over the early morning when I left the sick bay to get away from the voices I spent the morning watch in A boiler room for companionship It seemed dawned on me that at that time there were two boilers steaming and I left watch below—we must therefore have been at sea At the time the ship was not far from Nassau—the Buccaneers as they called themselves were flying the ground rock

To return to the night of the party After leaving me the mulhouse the Buccaneers wheeled me back into the hall and spent an hour tormenting me—putting clockwork or electric rats mice beetles &c in my bed holding a bottle of beer or spirits close to my ear and letting me hear it pour into a glass and so on After this I was again hypnotized—this time I do recollect someone making passes in front of my eyes Then

[illegible] at thing, I [illegible] is in a [illegible] the [illegible] must have been [illegible] At about 1130 [illegible] were only two [illegible] I think was that [illegible] Yes he stands [illegible] master of ceremonies [illegible] or insect in each leg—and [illegible] seered to that small thing [illegible] I wandered around the upper [illegible] I knew I was not the only any m[illegible]

[illegible] the rumbling and a hand pl[illegible] get me that e[illegible] still had [illegible] while [illegible] the Bucc[illegible] ing, thing, there is how [illegible] and voice [illegible] another phenomenon [illegible] seek as local [illegible] know [illegible] Dennis, the afternoon [illegible] my leg—some [illegible] time [illegible] happee [illegible] I just felt as I was in [illegible] Johnny calling, Johnny [illegible] into the air and said Hear [illegible] I know He [illegible] ight so I asked him Oh for that? when [illegible] Devil and Drunk act of course At that I felt like a million [illegible] acting as conchalantly as I could it had been worrying me all [illegible] but know [illegible] these people were and why they had picked on me Now I knew that it was as [illegible] practical joke on the part of the Colony I was [illegible] I didn't know at the time but my messmates the Seamen Petty Officers mess had been secretly and elaborately wired to televise this particular scene It was arranged that I be asleep by 2230 they would then smuggle me off the ship to the Colony Club (first hypnotizing me) and then I should be brought back to the ship still under hypnotic influence for the grand performance The two Petty Officers messes and the Chief P O s mess were rigged up with bars and a floating dance floor and bar was brought alongside to give the extra space for dancing The television two way radio and goodness knows what were brought and installed in my mess—a huge contraption requiring miles of special wiring and taking about three hands to operate Everything was set except that I could not get to sleep there was too much noise going on and although I nearly succeeded a couple of times in dropping off it was no good and the big act had to be abandoned As the act was scheduled for about midnight it was fairly late before the party got going When the floating dance floor pushed off those who had not caught it had perforce to stay aboard nobody seemed very worried, and officers gave up their cabins to ladies and children quite a few of them missed the boat Officers either crashed it down on settees in the Chief P O s or Petty Officers messes or stayed on their feet in the messes I think all visitors were not off the ship by 0630

The next day (Tuesday) at 1100 I was sent for by the Senior Medical Officer and told that he was not satisfied with the state of my nerves and mind especially as I was seeing and hearing things that were not there He was afraid I might jump over the side! He was therefore going to send me to hospital the following day to be examined by the neurologist I said Yes Sir and was told to turn in I was not very much worried about it until later in the evening when I was told I should fly up the next day I then realized it was to Bermuda I suppose I could have asked to see the S.M O and explained things as I have tried to do here but seats were already booked and in any case I had nothing

to fear from examination. I remained in the sick bay all that day and evening with the exception of a couple of hours after supper when I collected my gear and packed. (Another discrepancy here. I believe I told the Medical Officer I packed my bag on Wednesday morning which was incorrect.) I bathed and turned in again and about 2140 had a pleasant surprise—a tot of whisky from the sick berth Chief Petty Officer. About 2200 he came round again and gave me a sleeping draught and a tot of rum and told me to go to sleep. This I promptly proceeded to do.

At about 2230 I was shaken awake from a heavy sleep to find my surroundings totally changed. My bed appeared to be in its own and set in a terraced garden. The only lights came from the lighted windows of a few houses except for a spotlight which swung intermittently and quickly about eight feet from the ground. The whole effect was incalculable in the extreme and the lighting so dim and indirect that it was barely possible to discern the form of a human being at very close quarters. I very soon discovered that the setting was phoney—termed gardens do not roll slightly from port to starboard and gardens—even the best—do not have cretonne on their paths! The opening gambit came when an officer (one of the few I recognized) sidled up to my bed addressed me by name and said: "Here's that £20 I owe you." At the same time stealthily stuffing some paper under the sheet. Being a little wary yet of what it was all about I sat up in bed ostensibly to get a cigarette but really to give him more time. When I leaned back the officer and the paper had gone. Then began a series of questions by groups of about six persons at a time, each person asking two or three questions. Several women took part and two Army or Royal Marine officers (they wore beards and Sam Brownes but that was all I could recognize). On one occasion a group of (I think) four children aged about 13–15 were invited to quiz me, my consolation being that I could quiz them in return.

At approximately 0130 it was all over. During the session at least three people had acted as pseudo psychologists instead of asking straightforward questions—follow this finger in the dark" business. I thought at first this was a genuine test for nerve reactions organized by the medical officer but as it began to develop into a quiz—quotations, poems, "What is the capital of Cambodia?" "Where is the mouth of the Oder?" &c.—I began to think it was just another out-of-the-ordinary titbit for the palate of the jaded guest—and I still think so. I heard no more of the results of this unique medical treatment as the specialists were at a bar set up in the sick bay until 0400 when I managed to get to sleep.

I flew to Bermuda the next day.

On reading through the account I find that I have gone rather astray. On the occasion of my first visit to the sick bay I remember that even after three phenobarbitone tablets and a bromide I dozed intermittently only until 0330 when I went down to the boiler room. Another very puzzling fact about this is that in the boiler room during that morning watch four of the voices speaking to me in familiar tones seemed to belong to friends of mine on board.

In the foregoing account I have tried to be as accurate as possible but events of such a bizarre character occurring within such a short time have in cases tended to blurr from one day into the next.

PERSISTENT RIGHT AORTIC ARCH

BY

Surgeon Commander B. R. ALDERSON, R.N.

A GOOD example of this rare and interesting congenital anomaly was recently brought to light during the routine fluorographic examination of Royal Navy New Entries.

During the examination of a strip of 35 mm film, my attention was drawn to the cardiac outline in this case when it was seen that the normal aortic knuckle appeared to be absent and there was an unusual shadow to the right of the sternum The individual concerned was recalled for further investigation, when a routine postero anterior radiograph was taken and screen examination with a barium bolus was performed These pictures gave the characteristic features of persistent right aortic arch

Clinical examination was negative—he was a healthy youth of 18½ of unusually good physique

Discussion

In the development of the cardiovascular system six pairs of arches connect the paired dorsal aortæ but are not all present at the same time

Ultimate Destiny of the Arches

	Right	*Left*
1st	← Disappears →	
2nd	← Stapedial artery →	(atrophies in man)
3rd	← Common carotid artery →	
4th	(1) Innominate artery (2) Right subclavian artery	(1) *Aortic arch* (2) Origin of left subclavian artery
5th	— Disappears —	(Not constant)
6th	—	(1) Pulmonary arteries (2) Ductus arteriosus

In this condition we are concerned with the fourth aortic arch which normally on the right side gives origin to the innominate artery and the commencement of the right subclavian artery and on the left it forms (1) the adult aortic arch between the origin of the left common carotid artery and the end of the ductus arteriosus and (2) the origin of the left subclavian artery

In the event of stenosis of the fourth left arch, the condition of coarctation results unless the corresponding right arch persists—when this does occur and the fourth right aortic arch remains patent thus forming the whole aortic arch an adequate blood supply to the lower part of the body is assured and the clinical manifestations of the coarctation are not seen—in such cases, the fourth left aortic arch is represented by the left subclavian artery

Radiology

The classical X-ray appearances are

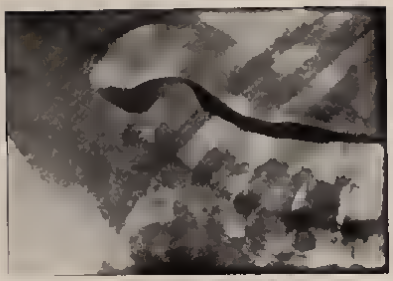
(*1*) A shadow to the right of the sternum directed towards the right sterno clavicular joint

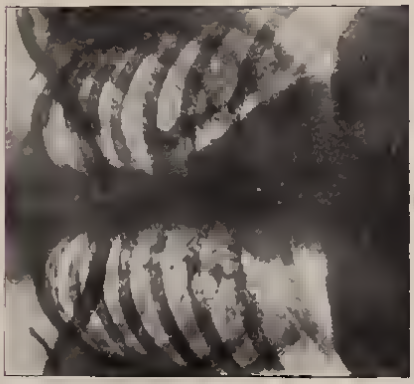
(*2*) Absence of the normal aortic knuckle

(*3*) Presence of a retro œsophageal aortic knob

(*4*) Displacement by (*c*) of the œsophagus and trachea to the left

These features are clearly seen in figs 1 and 2 and are self explanatory





COMMENT

The [illegible] and is only the [illegible] 190.00 [illegible] examinations [illegible] the time to screen every case in which the acute knuckle is not as obvious as usual it is possible that this anomaly may not be quite as rare as is thought at present

Reviews

COMMON SKIN DISEASES By A C Roxburgh M D F R C P Emeritus Physician for Diseases of the Skin and Lecturer on Diseases of the Skin St Bartholomew s Hospital Eighth Edition 194 Pp xxxii + 498 8 coloured plates and 212 illustrations London H K Lewis & Co Ltd Price 21s 0d

A new edition of Roxburgh s Common Skin Diseases is always welcome. Everyone knows it as one of the clearest written books on the subject and this eighth edition is on the same high level of product as its predecessors Compared with the seventh edition it has an additional 45 pages and the new text is taken up mainly with treatment by the sulphonamides and penicillin

The Navy already recognizes the worth of this textbook and supplies it in the service-afloat medical library It can be recommended as a good guinea s worth to any G P or Service medical officer

SURGICAL APPLIED ANATOMY By Sir Frederick Treves Bart revised by Professor Lambert Rogers M Sc F R C S F R C S (E) F R A C S F A C S Eleventh Edition 1947 Pp 560 192 figures including 68 in colour London Cassell & Co Ltd Price 20s 0d

In the eight years which have elapsed since the previous edition this work has been subjected to radical revision The most up-to date information is supplied in lucid style and in excellent print on good quality paper It is a pity therefore that some of the illustrations are too small and lacking in clarity to justify their inclusion A more extended use of contrasting colours would greatly increase the clarity of many small illustrations

The personal contributions of past surgeons is kept well to the fore in the student s mind by the inclusion of an almost overwhelming number of names in the text—many of them difficult to memorize and confusing to a student Similarly there can be little justification for informing us that a "loose body" was "Gelenkmaus" to Billroth while many will be surprised to be reminded that the pyramidal lobe of the thyroid is the lobe of Lalouette

The surgical advice given is uniformly excellent and clear as would be expected from one with Professor Lambert Rogers wide experience but many will disagree with his statement that the Billroth I is the best type of gastrectomy

These few points do not in any way alter the fact that this book fills a very special niche in the surgical library and will continue to be widely appreciated by surgeons and students alike

SYNOPSIS OF SURGERY By Hey Groves edited by Sir Cecil Wakeley K B E C B D Sc F R C S F R S (E) F A C S F R A C S Senior Surgeon to King s College Hospital Director of Studies and Teacher of Operative Surgery King s College Hospital Medical School Hunterian Professor and Vice President Royal College of Surgeons of England temporary Surgeon Rear Admiral to His Majesty s Fleet &c Thirteenth Edition 1947 Pp 640 13 plates and 191 figures Bristol John Wright & Sons Ltd Price 25s 0d.

This well known and popular synopsis has now reached its thirteenth edition The fact that this should be required only two years after publication of the previous edition is an indication of the popularity and usefulness of the book

Much [illegible] necessary [illegible] the [illegible] and [illegible] updated [illegible] A chapter on penicillin [illegible] has been added in addition [illegible] the text

This [illegible] volume of information [illegible] compass and [illegible] be thoroughly [illegible] quickly for the quick [illegible] particular subject

MODERN [illegible] Book 1947 Edited by S [illegible] W [illegible] *M B B Ch B* D Sc [illegible] + 354 38 figures and 17 plates London The Medical Press [illegible]

This well [illegible] manual is now in its [illegible] edition and its popularity is fully justified As a [illegible] subject matter covers a wide field of medical practice The individual contributors are all authorities in their specialties and the practitioner will fail to get help on [illegible] subject he may seek guidance

THE TREATMENT OF RHEUMATISM IN GENERAL PRACTICE By W S [illegible] *C B E* M A M D F R C P Physician in Charge Department of [illegible] Rheumatic Diseases West London Hospital Physician B R C S Consulting Rheumatologist Medical Specialist Empire Rheumatism Council & Fourth Edition 1946 Pp 258 London Edward Arnold & Co Price 12s 6d

The author of this book has endeavored to describe the various pathological processes that go towards making the complex clinical entity called rheumatism in the first half of the book In the second half he discusses all the various methods of treatment—medical and physical—which are available and their detailed application There is a great deal of unnecessary verbiage in this book but it should be useful to the final year medical student or the early graduate in practice practice

THE APPENDIX By R J McNeill Love M S F R C S F A C S First Edition 1947 Pp 186 34 illustrations London H K Lewis & Co Ltd Price 12s 6d

This is a simple gentle to appendicitis—a very harmless treatise It contains no startling new observations or theories and is a very minimum of statistics and of course it is written in the breezy cheerful dogmatic style of new aspect of this author Evidently primarily intended for the young doctor (not the young surgeon alone it is to be hoped) its chief defect is only in the impression it may cause that the cause of appendicitis—appendicitis—there one is called to see a case It is a rude awakening to the fact that the diagnosis may be among the most difficult one still does it know

Naturally Mr McNeill Love stresses the importance of the expectant treatment of other than early cases of acute appendicitis and gives a full account of the time so many incorrect accounts of the Ochsner Sistrunk treatment have been given since its introduction and some have brought disrepute on it Possibly because the prejudice begins with an accident of the author's contrary to treatment very full details of the method are given and the young surgeon may lose the fundamental truth that the treatment of *acute* appendicitis is appendicectomy in time

All aspects of the disease are locally covered without irrelevant or confusing detail and there are many useful and amusing little hints such as a method of awakening a sleeping patient by pressure on the trapezius The patient sitting up awakes smiling and I find this is so—though the more practical reader is thinking this gentle measure and nothing but vigorous shaking suffices

Altogether this is a most useful little book which fills the gap that has existed between the chapters on the appendix in the standard textbooks and the form the monographs

But on page 166 will be found the appendicectomy—oh Mr McNeill Lovel

QUESTIONS ANSWERED ABOUT THE HUMAN BODY By Cecil G Hill First Edition 1948 Pp 121 24 illustrations London Julian S Hall Price 2s 6d

A useful pocket book for beginners or for those who are interested in the human body and simple answers regarding the human body It should serve as an incentive to explore more extensive works on the subject

PRACTICAL TEXTBOOK OF LEPROSY By R G Cochrane M D F R C P F T M & H First Edition 1947 Numerous illustrations London Oxford University Press Price 42s 0d

This book is primarily intended—as the title implies—as a practical guide to practitioners in the tropics and to those in charge of institutions However it can be read with enjoyment in fact to the average medical officer in the Navy leprosy is a loathsome inevitable disease In this respect Dr Cochrane's clear differentiation between the types of leprosy is invaluable At first the emphasis on classification and nomenclature may seem a little too exhaustive but the chapter on prognosis fully justifies this emphasis The chapters on treatment serve to show the limitations of hydnocarpus esters in injections (objection might be taken by Mr A P Herbert to mention of a lesion being "reintrademarked" —what a word!) It is unfortunate that this edition has not been able to cover the early work on promin and promazole It is also hoped that the trials of streptomycin which have been suggested may be known in time for another edition

One point made by Dr Cochrane which is less clearly stated in other textbooks is that the role of the reaction in leprosy is defensive and that a good prognosis in tuberculoid leprosy can be given in the patient whose skin shows a severe initial reaction The well nourished seem to show a tendency towards lepromatous leprosy and the undernourished show benign normal lesions according to his own cases

It is in his final chapters when he uses the work being done in the Madras Presidency as an example of preventive medicine that Dr Cochrane is most interesting His plea for a saner outlook towards leprosy can be supported by any doctor he stresses the fact that prolonged contact of a susceptible person with an infected patient is necessary for passage of the disease. Public education is prodneing a saner outlook on many diseases, such as tuberculosis and syphilis is it too much to hope that education will make the term "a social leper" and all that such a use implies a point of academic interest with leprosy taking its place as just another disease?

CHRONIC STRUCTURAL LOW BACKACHE DUE TO LOW BACK STRUCTURAL DERANGEMENTS By R A Roberts B Sc M B Ch B D M R L First Edition 1947 Pp 105 137 illustrations on 46 plates London H K Lewis & Co Ltd Price 45s 0d

We tend to laugh at women and their changing fashions but in all conscience I sometimes wonder if we have the right to do so when one contemplates the amazing swings in fashion in medicine and the astounding new a new theory drug or mode of treatment will be followed practised and expounded with an anything but critical approach

Here then is the "New Look" in the causation of back pain We have had our fashions in sciatic neuritis lumbosacral spinal fusions fibrositis and a host of others culminating in the prolapsed intervertebral disc In 1943 Dandy was saying that the indication for laminectomy for a prolapsed disc was pain in the back and we smiled In 1946 Barnes and Young said almost the same thing and we smiled less Laminectomies for discs were becoming increasingly common but recently (though I know of no paper on the subject) we have realized that by far most cases all of the patients so treated were getting better

Now comes Dr Roberts who is quite frankly trying to sell us this theory about low back pain but I would hasten to add that he clearly does so with the full realisation that he is *not* explaining all back pain and sciatica that he is *not* asking for a new vogue a new craze or a "New Look" He produces sufficient evidence for us to consider most carefully now and in the future the cases where deficiency in bone structure of the pars interarticularis exists (and is demonstrable radiologically by special oblique views) allowing final movement between the body unit and the lamina unit of the vertebra and even forward slipping of the body up to a full spondylolisthesis This so upsets the mechanics of the back that edema occurs in the muscles ligaments and fascial planes and by pressure causes pain tenderness and spinal nerve signs symptoms and possibly autonomic nerve lesions I do not feel in a position to criticize the theory

and pathology at present but suggest that sufficient evidence is produced here for them to be acceptable provisionally at least

The lay out of the book may be criticized in that it might be preferable to commence with a brief and lucid exposition of the anatomy and pathology of the lesion to be followed by the case histories and X ray films of illustrative cases As it is one labours through the former not fully appreciating the argument at first The X rays could be improved on in many cases particularly as oblique views of the spine are often difficult to interpret at the best of times

From the point of view of the naval medical officer it is the later chapters of the book that are of most value. The last chapter voicing the author s plea to consider all these patients as having an organic lesion and treating them as such is the most harrowing reading I have found in many months The number of patients all drawn from case histories compiled during the author s Army service who were treated as anxiety states other psychiatric conditions and even malingerers is awful and must make us all examine our consciences in respect of many patients and diseases

Whilst realizing fully that all too many reviews end thus I would suggest most sincerely that all naval medical officers should read at least part of this book which is an honest and often impassioned appeal to *treat* these unfortunate patients (who report with distressing frequency and in large numbers) to the utmost of our ability

THE NATURAL HISTORY OF DISEASE By John D Ryle M A M D F R C P Professor of Social Medicine of the University of Oxford &c Second Edition 1948 Pp 484 London Geoffrey Cumberledge Oxford University Press Price 22s 6d

When the first edition of Professor Ryle s book appeared in 1936 it was hailed almost throughout the English speaking world as a new medical classic To the student and physician it has remained a masterpiece of lucid thinking and teaching We now welcome the second edition delayed through wartime restrictions on paper and printing Only a very small amount of the 1936 teaching dates The author has had to alter little of his original text and that mainly in relation to treatment with the sulphonamides and antibiotics We all know of Professor Ryle s increasing interest in social medicine and this is reflected in some of the revised and added material

To have held professorships at both Oxford and Cambridge is ample proof if any were needed of the status of the author This book is recommended to everyone who appreciates the value of the simple and profound in medicine expressed in clear and flowing English.

We acknowledge with thanks receipt of the following publications

Acta Medica Mexicana *Annals of Tropical Medicine and Parasitology* *Archives Medicales Belges* *Archives Internationales de Pharmacodynamie et de Therapie* *Journal of Experimental Biology and Medical Science* *British Medical Journal* The Brand Way *Bulletin International des Services de Santé des Armées* *Chronicle of the World Health Organization* *Clinical Journal* *Guy s Hospital Gazette* *Hospital Corps Quarterly* *Indian Medical Gazette* *Journal of the Bowman Gray School of Medicine* *Journal of the Medical Association of Eire* *Journal of the Palestine Arab Medical Association* *Journal of the R A M C and Gazette* *Journal of the Royal Naval Scientific Service* *Journal of the Royal Sanitary Institute* *Medical Journal of Australia* *Medical Press & Circular* *Middlesex Hospital Journal* The Military Surgeon *Proceedings of the Staff Meetings of the Mayo Clinic* *Revista Medicina Aeronautica* *St Mary s Hospital Gazette* *St Thomas s Hospital Gazette* *Tropical Diseases Bulletin* *Ulster Medical Journal* *United States Army Medical Library Current List of Medical Literature* *United States Naval Medical Bulletin* *West London Medical Journal* United States Marine Corps Division of Public Information "The Battle for Tarawa" and "The Defense of Wake"

News of the Service

CHRISTMAS, 1947

V A D DANCE R N HOSPITAL HASLAR

THE V A D [illegible] commandant R N Hospital Haslar and her capable assistants must be congratulated upon a successful attempt to merge from the gloom of austerity [illegible] present a fancy-dress ball upon truly pre war lines despite all the difficulties that clothing coupon shortages and meagre ration allowances could place in their path

The ball was held in the V A D Quarters on 16th December 1947, and took the place of one of the usual very popular guest nights which are held each month Those present at the function included the Medical Officer in Charge and Mrs J A O Flynn Principal Matron and representatives of the Medical and Nursing Sisters Messes

Contestants in the fancy-dress competition displayed commendable ingenuity and a very wide range of costumes many of which notable for their simplicity of design and choice of material testified to the enthusiasm and goodwill of all who took part Improvisation was the keynote of the fancy dress parade and the adjudicators found their task a very difficult one Approximately 200 people took part in the parade but despite material shortages scarcely two contestants were similarly garbed

Readers who attended the event will probably recall several noteworthy and distinctive dresses it is regretted that space does not permit of a detailed description of them all, but those who numbered themselves among the prize winning entrants deserve special mention and reference must be made to "White Sahib the crinolined "Quality Street the remarkable jewel bedecked Carmen Miranda effect produced by a Sick Berth Attendant (with subsequent song and dance) the expertly made up witch the flower girls gypsies Arabs Turks the girl Matelots ' and the boy ' V A D ' Lastly those truly delightful specimens of the newly created spiv ' species

C III WARD R N HOSPITAL HASLAR

IN this ward (closed pulmonary tuberculosis) on Christmas Day rounds wa were greeted by the good wishes of the patients, silhouetted on the viewing box

"A Phreme Christmas and an A P New Year"

ADMIRALTY FLEET ORDERS

3540 —Periodical Dental Examination of Officers R N and R M

(M D G 29417/47 —3 Oct 1947)

The annual medical examination of officers R N and R M (including W R N S officers and nursing sisters) conducted in accordance with A F O 1554/47 is to include an examination by a dental officer

2 A [illegible] amination is to be [illegible] sent to the [illegible] Surgeon R.N. Barracks Ch[illegible] (Medical Hist[illegible] to be used for dental re[illegible] records

3511.—Discharge of National Servicemen found Medically Unfit on Entry Establishments

(N 7714/47—3 Oct 1947)

National Serv[illegible] be medically unfit at the [illegible] after arrival at the N[illegible] Establishment are to be dealt with

(*a*) I B Cases Men found to be suffering from I B [illegible] medically unfit for service [illegible] on the authority [illegible] of the medical [illegible] such reports should be [illegible] authorities [illegible] the medical officers of health of the [illegible] the men [illegible]

(*b*) Non I B Cases —

(i) Men entered in skilled trades, categories	May be discharged [illegible] of the Commanding Officer [illegible] establishment after [illegible] of each case by [illegible] posed of at least [illegible] at the establishment [illegible] Surgeon Captain or [illegible] member
(ii) All men [illegible] unfit for sea, harbour or shore service in [illegible] of the R.N. or R.M.	If the necessary medical [illegible] available a full medical report [illegible] be forwarded to the Admiralty for immediate decision as to the [illegible] disposal
(iii) Men (other than those at (i) above) considered to be fit for sea, harbour or shore service in a branch other than that for which they were entered	To be transferred to unit [illegible] which they are fit and suitable [illegible] respective of their medical category [illegible] the case of Royal Marines such arrangements are to be made direct between the Commanding [illegible] R.N. Barracks and the Major General Royal Marines Chatham

2 A monthly report is to be forwarded to the Admiralty giving particulars of all men discharged on the authority of the Commanding Officer under this Order In the case of any man discharged under paragraph 1 (*b*) (i) and (ii) a brief medical report giving details of the disability and signed by the members of the medical board is also to be included

3 Men discharged under paragraph 1 above and men whose cases have been submitted to the Admiralty for decision are not to be kitted up On discharge they are to be paid up to date but no extension of pay is to be allowed nor are they to be allowed plain clothes gratuity

4 Men discharged for medical defects discovered within a week of entry who may have been kitted up or partially kitted up may retain such articles as in the opinion of the Commanding Officer are necessary to enable them to go home decently dressed but are not to receive plain clothes gratuity nor is their pay to be extended as for men invalided after service

5 Men who develop disabilities during their period of training or whose defects are discovered after one week or more of service are to be brought forward for any men who are invalided being discharged in the usual course their kits being dealt with in accordance with K.R. and A.I. Article 1879

(*A.F.O. 1801/43 is cancelled.*)

3518.—Hospital Treatment for Naval Families

(P.M. 3870/47.—[illegible] 1947.)

With effect from [illegible] June 1947 charges for treatment and maintenance of families of naval officers and ratings who have been admitted for medical treatment to naval hospitals abroad have been adjusted to conform with the correct Army practice.

2. The new scale of charges for treatment and maintenance in Service hospitals will be as follows:—

(a) *Families of regular and non-regular officers*

Adults	12s. 0d. per day in officers' ward 10s. 0d. per day in ratings' ward
Children under 5 years	One quarter of the above rates
Children aged 5 years and under 14 years	One half of the above rates.

(b) *Families of all regular ratings eligible for marriage allowance*

Families of ratings aged 21 years or over	No charge
Families of ratings under 21 years	1s. 0d. per day

A charge of 1s. 0d. per day is made for confinements in every case with a maximum of £1 in all. This is in addition to the charge of 1s. 0d. per day for families of ratings under 21 years.

(c) *Families of non-regular ratings eligible for marriage allowance*

Families who proceeded abroad under the free family passage scheme	As in (b)
As a temporary measure families who proceeded abroad under private arrangements but qualify for married rates of local overseas allowance	As in (b)

Families not so qualified:—

Adults	10s. 0d. per day
Children	Proportionate charges as in (a)

3. Naval families may be admitted to naval hospitals on these terms wherever practicable without prejudice to ordinary service requirements and within the limits of existing naval hospital accommodation and staff. The present requirements that the case shall be of extreme urgency and the admission be as a temporary expedient is waived.

4. For the purpose of this Order the term "regular" includes all British ratings except those serving on National Service (Hostilities only) engagements.

5. Families of locally entered personnel (e.g. Maltese, Goanese, etc.) are not eligible for treatment in naval hospitals except in emergency.

(*A.F.O. 1493/30.*)

3519.—Long Term Treatment Scheme—Revised Invaliding Procedure

(C.W. 9837/47.—3 Oct. 1947.)

I hold further notice the following revised invaliding procedure will apply to officers and ratings who are undergoing in-patient treatment in a civil military or R.A.F. hospital or a rehabilitation centre or in a civil hospital under service arrangements and who are only temporarily discharged from hospital pending further in-patient treatment other than out-patient cases. Officers and ratings not in need of in-patient treatment will continue to be dealt with under the normal regulations.

As long as they are in need of continued in-patient treatment in hospital officers and ratings will not be invalided until eight months have elapsed since last required for duty and checked sick with the invaliding disability previous absence if separated by less than six months duty to be aggregated for the purpose.

3 [illegible] attributable [illegible] or aggravated [illegible] [illegible] that the end of eight months [illegible] stabilized and the [illegible] capable of improvement by [illegible] the officer [illegible] rating will be [illegible] treated as heretofore [illegible] treatment up to three [illegible] longer period [illegible] finality of finality of in patients [illegible] medical or surgical finality [illegible] mental cases finality of [illegible] considered to have been reached [illegible] purposes of this scheme at 2½ years [illegible] of blindness medical or surgical finality [illegible] treatment will mark the completion [illegible] benefits under the scheme

4 On reaching finality of treatment in attributable cases or at the end of eight months in non-attributable cases formal leaving action will be taken and [illegible] leave etc, will be granted in the usual way

5 In order to determine which cases are eligible for extended retention on pay under paragraph 3 a preliminary medical survey will be held after five months treatment or before admission to a sanatorium or civil hospital if earlier The decision of acceptance or rejection will be notified to the naval hospital rendering the preliminary report by the Medical Director General and Sepply Officers and depots etc will also be informed The patient will be given full instructions by the hospital authorities

6 The above arrangements will apply to serving officers and ratings of the following categories —

(a) Active list officers R N and R M
(b) Re-employed retired and emergency list officers R N and R M
(c) Temporary R N and R M officers
(d) Reserve officers (temporary and permanent)
(e) Ratings and R M other ranks (regular engagement reserve pensioner and hostilities only) (excluding R M police and R M F (special reserve))
(f) W R N S (officers and ratings)
(g) Members of Q A R N N S W A R N N S R and voluntary aid detachments
(h) T 124N and T 124T and cable ship agreements (officers and ratings)
(i) Maltese and foreigners entered locally on civilian establishments service engagements

7 Detailed instructions for carrying out these arrangements have been prepared and should be in the hands of all concerned in the operation of the scheme Copies of the instructions under Reference M D G 22328 47 SS may be obtained on request from the Medical Director General of the Navy S S Branch Queen Anne s Mansions St. James Park London S W 1

(*A F O 5731/44*)
(*A F O 805/46 is cancelled*)

3603.—Dental Records—Royal Marine Other Ranks
(M D G 29418 47 —10 Oct 1947)

As from 1st January 1948 completed dental records on Forms M 228 and M 234 in respect of Royal Marine other ranks entered after this date (and not affiliated to divisions) are to be sent for filing to the Senior Dental Surgeon R M Depot Deal who is to retain Forms M 227a

2 Dental records in respect of Royal Marine other ranks entered before 1st January 1948 who retain their divisional prefixes are to continue to be sent for filing to the Senior Dental Surgeon of the R M barracks to which the man is affiliated

(*A F Os 7?2 47 and 2727/47*)
(*A F O 3420 47 is cancelled*)

3608.—Post War Pension Code—Service Gratuities—Invalids
(D N A 3383/47 —10 Oct 1947)

Service gratuities for men invalided are automatically assessed at the alternative in receipt of revolving documents The procedure laid down in A F O 3168/47 does not therefore apply to invalids

(*A F Os 2903 47 and 3168/47*)

3013.—[illegible]—The Gilbert Blane Medal for Medical Officers R.N. 1947 Award The Gilbert Blane Medal for Medical Officers R.N. 1948—REPORTS

(M.D.G. 11363/47.—10 Oct. 1947.)

[illegible] Medal for the year 1947 has been awarded to Surgeon Commander [illegible] Sandor, M.B., B.Ch., D.P.H., R.N. [illegible] the Gilbert Blane Medal for 1948 will be considered as a result of [illegible] the Medical Director General in accordance with the Regulations [illegible] (P.I.T. June, 1947, page 149).

[illegible] nominations for the award should be forwarded through the [illegible] to the Medical Department not later than the 31st March 1948 [illegible] work done and supported if possible by documentary evidence.

(*A.F.O. 6440/46.*)

3013.—Travelling—Personnel Undergoing Long-term Treatment—Transfer of Free Warrants to Relatives

(P.M. 6910/47.—10 Oct. 1947.)

Personnel undergoing long-term treatment in hospitals and sanatoria in the U.K. who are consequentially unable to proceed home on leave, may have the concession of free travel warrants transferred to a relative, not necessarily next of kin to enable the latter to visit them in hospital. Warrants thus transferred will count against the number of free leave travel warrants allowed annually.

2. This concession dates from 1st April 1947 and pending further instructions the number of warrants which may be transferred is limited to two a year. Free warrants used by children under the age of 14 years will count as halves against the annual entitlement of the officer or ratings nominated, i.e. two warrants issued to children under 14 would count as one free warrant due to the officer or rating. Warrants are not required for children under three years of age.

3. Personnel concerned should apply for warrants to the Supply Officer of the establishment on whose books they are borne for full pay sick leave, enclosing pay books. Forms D.N.A. 800 third class in all cases, made out in favour of the relative as appropriate, should then be forwarded to the officer or rating for onward posting to the relative, the occasion for journey—"section of the form being shown as "hospital visit" (LIT).

4. Care should be taken to record details of the issue of warrants in pay books.

5. This concession is to be brought to the attention of all personnel nominated by the Supply Officers of the establishments on whose books they are borne for pay.

(*A.F.Os. 4425/43, 6091/45 and 3519/47.*)

(*A.F.O. 1798/47 is cancelled.*)

3331.—Civilian Medical Officers in Admiralty Industrial Establishments—Duties and Remuneration

(C.E. 6883/47.—24 Oct. 1947.)

The duties of civilian medical officers employed in Admiralty industrial establishments on a capitation basis include the following,—

(1) To be responsible to the Head of the Establishment for the organisation and, as far as practicable, supervision of first aid services for treatment normally of injury and sickness. Such treatment is confined to what can reasonably be given at the establishment, except in the cases of injured persons who have accepted the Government scheme of compensation and are consequently entitled to given medical treatment to be given where possible by the medical officer at the establishment, surgery or patient's home. All cases of injury should be kept under review to ensure that the injured person returns to work when fit.

(2) To undertake so far as time permits general medical supervision of the establishment and in particular to advise as necessary or when requested on

matters of general hygiene within the establishment relations with external medical services medical aspects of A.R.P organisation and education of personnel in matters of health

(iii) Examinations of all new entrants other than those already examined under arrangements made by the Ministry of Labour

(iv) Examinations of men on transfer to the hired list transfer to established list if retention beyond age of 60 and in connection with claims for compensation for injury (including the report on Form D 739)

(v) Examinations of personnel for transfer to other yards or establishments

(vi) Superintendence of sick list and certification of fitness of workpeople to return to duty following sickness

(vii) Periodical examination of workers engaged in lead processes and other occupations involving risk of injury to health as required by statutory regulations or Admiralty instructions except in so far as such examinations are carried out by the examining surgeon appointed under the Factory Acts

(viii) Routine inoculations and vaccinations of personnel appointed for service abroad and their families

(ix) To keep confidential records of his work as required by statutory regulations or Admiralty instructions

2 Remuneration will be made as from 1st July 1947 on the undermentioned scale according to the numbers of personnel employed at the establishment viz —

Per numbers from	*Per annum* £ s d
150 to 175	67 10 0
176 to 225	90 0 0
226 to 275	112 10 0
and for each additional 50 or part thereof up to 1 000	22 10 0
1 001 to 1 500	450 0 0
1 501 to 2 000	600 0 0
2 001 to 3 000	750 0 0
3 001 to 4 000	825 0 0
Over 4 000	900 0 0

3 Payment will be made quarterly in arrear by the Director of Navy Accounts and commencing with the quarter ended 30th September 1947 officers in charge of establishments concerned are to forward to the Director of Navy Accounts (Branch 6) as soon as practicable after the last day of each quarter a return showing the average numbers grouped under the Votes from which they are paid of civilian staff of all grades borne on the books of the establishment during the preceding quarter This return should not include personnel who although borne on the books of the establishment are serving on detached duty in circumstances under which the medical officer is not responsible for them or Royal Marine Police For attendance on Royal Marine Police the medical officer should be instructed to prefer his claim under B R 739

4 In cases in which payment has hitherto been made locally by establishments particulars of payments made in respect of the quarter ended 30th September 1947 are to be forwarded forthwith to Director of Navy Accounts (Branch 6) by whom the necessary adjustment consequent on the operation of the new rates from 1st July 1947 will be made

(*A F O 549/45 is cancelled*)

3858 —Instructional Dental Films

(M D G 17779/47 —31 Oct 1947)

The printing and distribution of instructional dental films referred to in A.F O 3341/47 will not be completed until January 1948 and copies should not be demanded from film libraries until then

(*A F O 3341/47*)

3987.—Workpeople—Sick Leave—Tuberculosis

(L 13640/47.—7 Nov. 1947.)

It is the usual practice that workpeople in Admiralty establishments are granted sick leave only when there is a reasonable prospect of recovery and return to duty.

2. It is desired, however, in view of the national scheme of miniature mass radiography for the detection of pulmonary tuberculosis (see A.F.O. 5960/44), that this regulation should be applied leniently in the case of workpeople who are found to be suffering from tuberculosis and are required to be absent from duty in order to obtain the necessary treatment.

3. Unless it is evident from the initial medical report that there is little prospect of an established workman's recovery and return to duty for a very long time, the man should be kept on the books of the establishment and granted sick leave in accordance with the provisions of Home Dockyard Regulations, Article 212. In the case of a hired workman dealt with entirely locally under paragraph 5 of that Article, arrangements should be made for his discharge only if after a period of absence which can be regarded as not unreasonable in T.B. cases it is still not possible for the medical officer concerned to form any opinion that there is a prospect of the man's recovery and early return to duty. In such a case, the man's name should be borne in mind for consideration for re-employment when he is certified fit to resume duty, subject to there being a suitable vacancy at the time, and he should be advised of the fact when notice of discharge is given.

4. Details of all cases of pulmonary tuberculosis, whether diagnosed as a result of a mass radiography test or not, are to be reported to the Admiralty for onward transmission to the Treasury Medical Adviser. The following procedure should be followed:—

(1) As soon as an industrial employee is certified to be suffering from this disease, he should be sent a Form E.21A, with a request that he should have this completed by his or her doctor, local tuberculosis officer or sanatorium medical officer, as appropriate. On return the Form is to be forwarded together with a copy of his sick leave record, in Form E.55, to the Secretary of the Admiralty (Labour Branch), Bath.

(2) Further reports at three-monthly intervals should be obtained on Form E.21B and forwarded as above.

(3) When resumption of duty is anticipated, and before this takes place, a report should be obtained on Form E.21C and forwarded as above.

(*A.F.O. 5960/44.*)

4000.—Medical Instructions for Naval Aircraft Personnel

(M.D.G. 24254/47.—14 Nov. 1947.)

Paragraph 3 of K.R. and A.I. Article 335 and K.R. and A.I. Article 1414a have been cancelled by the instructions contained in A.F.O. 2610/47.

(*A.F.O. 2615/47.*)

4001.—Vaccination Against Smallpox—Introduction of Multiple Pressure Method

(M.D.G. 28956/47.—14 Nov. 1947.)

The immediate object of vaccination is to introduce vaccinia virus into the deeper layers of the epidermis where multiplication takes place most easily. The best method of doing this is the multiple pressure technique which has several advantages over other methods, e.g. it is almost completely painless, involves a minimum of trauma, is less likely to be associated with unduly severe local reactions or septic complications and ensures a higher proportion of "takes." As from the date of receipt of this Order the multiple pressure method of vaccination, as described below, is to be adopted.

Preparation of the skin.—The area to be vaccinated should be well cleansed with soap and water and must be thoroughly dry before the lymph is applied. The area may be swabbed gently with ether, but care should be taken not to rub so vigorously as to damage the epidermis and thus encourage the development of secondary vesicles. (Methylated spirit, alcohol or other agents should *not* be applied.)

4 [illegible] *vaccination* [illegible] lymph [illegible] of an inch in [illegible] placed on the skin at the prepared site usually [illegible] of the delt[illegible] on the left arm. A flat-sided needle—straight [illegible] should be [illegible] relatively large size in good condition sharp and steri[illegible] parallel to tangential to the arm with the forefinger and middle finger above [illegible] below. The side of the needle point is then pressed firmly and rapidly [illegible] thirty times as a rule, taking about ten seconds. The number of pressures employed in making the insertion varies according to the vaccination history of the person being vaccinated (*see* para. 5). In making the pressures the needle should be held [illegible] of the skin each time. Suitable needles may be obtained from the nearest R.A.M.C. medical depot.

This rapid up and down [illegible] the needle is in a plane perpendicular to the skin. The needle point is not drawn across the skin but at each pressure the elasticity of the skin pulls a little of the epidermis on the point of the needle so that the virus burning lymph is carried into the deeper up and down layers. If the skin has not been adequately prepared by a preliminary cleansing procedure and the needle has been properly aligned no pain or bleeding should occur.

As soon as the pressures have been completed the excess lymph should be wiped off gently with cotton wool, the remainder being allowed to dry.

4. *Use of a dressing.*—The immediate application of a dressing is unnecessary. At the stage of maximum reaction, however, a piece of sterile gauze may be placed over the lesion if considered desirable.

5. *Method of vaccination.*—(*a*) First vaccination after entry should be done by means of a single insertion about one eighth of an inch in diameter. If there is a definite scar of previous vaccination thirty pressures are to be employed in making this insertion; if there is no evidence of previous vaccination ten pressures only need be employed.

(*b*) Revaccination is to be done by a single insertion with thirty pressures. If there is no vesicle formation a further attempt with thirty pressures is to be made immediately.

(*c*) When re-vaccination is undertaken in the presence of an epidemic or under prevalence of smallpox there should be at least two separate areas of insertion with thirty pressures in each.

(*d*) Primary vaccination of infants a single insertion by the multiple pressure technique using thirty pressures should be employed as young babies are less prone to reaction than adults. The best age for vaccination in a thriving infant is from three to four months.

6. *Recording of results.*—Accurate reading of the results of vaccination depends both on the period of time after insertion at which the maximum local reaction occurs and on the degree of reaction. Maximum reaction may occur at any time within 2-10 days after vaccination. At least two inspections should be carried out, the first after 48 hours and the second on the sixth day, the latter to assess the result which is to be recorded as follows:—

(i) Where vesicle formation is absent a second attempt should be made. If a similar result is obtained it should be recorded as "Insusceptible to vaccination" (I.T.V.).

Note.—This insusceptibility should not be considered a final lifelong categorization. Such persons are to be re-vaccinated at the usual intervals required for those who have been successfully vaccinated.

(ii) Where vesicle formation is present—

(*a*) Where vesicle formation is moderate and is judged to have reached or passed its maximum at the time of inspection (on the sixth day) it should be recorded as "Accelerated reaction (Vaccinoid)".

(*b*) Where vesicle formation is more marked than in (*a*) and is still developing it should be recorded as "Typical primary vaccinia."

[illegible]

[illegible] —Wh[illegible] primary vacc[illegible] Smallpox [illegible] reason the pr[illegible] should not be given until thre[illegible] at the same time as vaccinat[illegible]

[illegible] —[illegible] tion is to be carried out every three [illegible] follow the same instructions as those in force for men [illegible] epidemic all persons exposed to risk who have not been [illegible] fifteen days are to be re vaccinated

11 [illegible] intermediate between epidemic risks and normal overseas risks ap[illegible] measures are to be adopted the advice of the local health authori[illegible] necessary

12 [illegible] should be kept in all ships and establishments in which are to be carried [illegible] details of all vaccinations and re-vaccinations carried out —

Origin and Batch No of Lymph used	[illegible]	Off No	Name	Rating	Result and Date	Primary or Re vaccination

Particulars of primary vaccinations and re vaccinations are to be included in the journals of medical officers and in the medical and surgical reports of Naval hospitals and Royal Marine barracks

13 When vaccination or re vaccination cannot be satisfactorily performed in a ship recourse is to be had to local vaccinators who under the authority of the Captain will be paid by the Supply Officer for each successful case

14 When circumstances arise rendering recourse to local vaccinators necessary the facts are to be reported immediately by the Commanding Officer to the Medical Director-General

15 *Certificate of Vaccination* —In addition to being noted in the Naval Pay and Identity Book (S 43 A) certificate of vaccination is to be given when required It will be in the form of the International Certificate below

Note —It will be noted that the term Reaction of Immunity is used in the International Certificate of Vaccination although this term is not now approved generally

In order to [illegible] unnecessary complications for [illegible] Reaction of Immunity is [illegible] in place of Insusceptibility [illegible] complying the certificate.

[illegible] Certificate of Vaccination [illegible]

This is to certify that
(Age [illegible] Sex [illegible]) whose signature [illegible] this day
been vaccinated by me against smallpox
(Origin and Batch No. of Vaccine [illegible])

Official Stamp	Signature of Vaccinator
	Official Position
	Place

Signature of Person Vaccinated
Home Address
This is to Certify that the above vaccination was [illegible]
with the result(s) shown hereunder —
Result of Inspection [illegible]

Official Stamp	Signature of Doctor
	Official Position
	Place Date

Use one of the following terms in stating the result viz — Reaction [illegible]
Accelerated Reaction (Vaccinoid) Typical primary vaccinia [illegible]
No Reaction will not be accepted
Signature of Person vaccinated
This certificate is not valid for more than three years from date of issue

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16 At home the medical officer can obtain supplies of lymph by written application to Medical Officer in Charge, R N Hospital Chatham Lymph is stocked in 25-dose ampoules 10-dose tubes and single dose capillaries The greatest possible use is to be made of multiple-dose containers and when ordering supplies medical officers are to indicate the number and size of the container required as well as the total number of doses

On foreign stations supplies are to be obtained locally from recognised sources but if such cannot be procured application is to be made by signal to the Medical Director General

17 Lymph must be carefully stored in the coolest available place and must be used within seven days of its Date of Manufacture If the lymph can be stored in a refrigerator whose temperature is constantly between 0° C and 10° C the period may be extended to fourteen days If the whole of the contents of a multiple dose container are not expended on one day the remainder is not to be replaced in the refrigerator for use on another occasion but is to be discarded

18 K.R and A.I Article 1417 will be amended in due course

(K R and A I Art 1417)
(A F Os 1885/47 and 2121/47)
(A F O 4278/46 is cancelled)

4002.—Yellow Fever—Protective Inoculation

(M.D.G. 43544/46.—14 Nov. 1947.)

Subject to the provision of Clause 13 K.R. & A.I. Article 1417, all personnel proceeding by whatever means to or passing through areas where yellow fever is endemic must be in possession of written evidence that they have been inoculated against yellow fever within the previous four years.

The African endemic yellow fever area comprises:—

From the mouth of the River Senegal along that river eastward to the 15 degrees North parallel of latitude; thence eastward along that parallel to the eastern border of the Anglo-Egyptian Sudan; thence northward along the eastern coast of Africa to the southern boundary of the Protectorate of Kenya; thence westwards along the boundary and the southern boundary of Kenya Colony to its junction with the southern border of the Uganda Protectorate and thence along the eastern border of the Belgian Congo to the 10 degrees South parallel of latitude; thence westward along that parallel to the west coast of Africa, thence northwards along the west coast of Africa to the mouth of the River Senegal, including the islands of the Gulf of Guinea. The port of Massawa in Eritrea and an area 10 kilometres in radius from the centre of the town of Asmara in Eritrea are excluded. The Eastern Province and the Balovale District in Western Province in Northern Rhodesia are also included in the African endemic yellow fever area.

2. Immunity develops in about ten days after inoculation and this period should elapse before the journey is commenced.

In order to comply with quarantine regulations of India, personnel proceeding to that country or to Ceylon by air must be inoculated at least 14 days before the journey is commenced.

3. Inoculation against yellow fever should precede vaccination against smallpox if possible, the interval between the two being one of 14 days. If for any reason primary vaccination against smallpox has been done first, yellow fever inoculation should not be carried out until 3 weeks have elapsed.

4. Inoculations against plague, cholera, typhus or inoculation with T.A.B. can if necessary be given at the same time as inoculation against yellow fever.

5. In times of war, holiday cannot be accepted, the procedure laid down in paragraph 3 should be followed, and inoculations against yellow fever and vaccination against smallpox must be done at the same time.

6. While there is no scientific evidence to indicate that the taking of alcohol immediately before or immediately after yellow fever inoculation has a deleterious effect, it is certainly desirable that persons should not take alcohol for a period of 24 hours before and after inoculation.

7. The attention of medical officers is drawn to the rapidity with which this vaccine becomes inert if not stored at a temperature of 4° C. or under. For this reason inoculation should be carried out wherever possible at the hospital or sick quarters at which the vaccine is stored. When this is not done the vaccine, if practicable, should be collected from the storage depot on the day on which it is required.

8. Deterioration even under optimum storage conditions is rapid. Two months after date of manufacture the dosage on the label should be marked down to one half (i.e. 10-dose ampoules nominating as a 5-dose ampoule). After three months storage the vaccine should be discarded.

9. Stocks of yellow fever vaccine are held at the following establishments; replenishments for which are obtainable by application to the Medical Director-General:—

Royal Naval Barracks, Portsmouth.
Royal Naval Hospital, Haslar.
Royal Naval Hospital, Chatham.
Royal Naval Hospital, Plymouth.
Royal Naval Hospital, Port Edgar, South Queensferry, West Lothian.
H.M. Dockyard, Gibraltar.

10. Yellow fever inoculations can be carried out at the naval establishments mentioned in paragraph 9 and also at the following establishments —

Wellcome Research Institution, 183–193 Euston Road, London, N.W.1.

(All appointments for the Wellcome Institute to be made through the President, Admiralty Medical Board, Queen Anne's Mansions, St. James's Park, London, S.W.1. Tel. Whi. 9444, Ext. 685.)

Ministry of Health and Department of Health for Scotland centres —

		Tel. No.	Times
Newcastle	Regional Blood Transfusion Centre, 78, Jesmond Road, Newcastle-on-Tyne, 2	Jesmond 2992	Mondays 2–3 p.m.
Leeds	Regional Blood Transfusion Centre, Meanwood Park Colony	Leeds 52651	Fridays 2–3 p.m.
Oxford	Regional Blood Transfusion Centre, Churchill Hospital, Headington, Oxford	Oxford 61316	Mondays 2–3 p.m.
Bristol	Regional Blood Transfusion Centre, Southmead Hospital	Bristol 68021	Tuesdays 2–3 p.m.
Cardiff	Regional Blood Transfusion Centre, 19, Newport Road, Cardiff	Cardiff 4521	Mondays 2.30–3.30 p.m.
Manchester	Regional Blood Transfusion Centre, Manchester Royal Infirmary, Oxford Road, Manchester	Ardwick 3832	Tuesdays 2.30–3.30 p.m.
Birmingham	Regional Blood Transfusion Centre, 17, Highfield Road	Edgbaston 1182	Tuesdays 2–3 p.m.
Plymouth	Regional Blood Transfusion Sub-Centre, City General Hospital, Plymouth	Plymouth 5021	Not yet fixed
Southampton	Pathological Department, Royal South Hants and Southampton Hospital, Fanshawe Street, Southampton	Southampton 76211	Tuesdays 2.30 p.m.
Scotland			
Edinburgh	Bacteriological Department, Edinburgh Royal Infirmary, Lauriston Place, Edinburgh, 3 (Dr. W. R. Logan, Bacteriologist in Charge.)	Edinburgh 26031	Mondays and Wednesdays 2.30–3.30 p.m.
Glasgow	Public Health Clinic, 20, Cochrane Street, Glasgow, C.1	Glasgow Central 7610 Ext. 302	Fridays 2.30 p.m.
Aberdeen	City Hospital Laboratory, City Hospital, Urquhart Road, Aberdeen	Aberdeen 2242 Ext. 11	Thursdays 3 p.m. or by prior arrangement
Northern Ireland			
Belfast	Ministry of Health for Northern Ireland, Emergency Hospital, Musgrave Park, Balmoral, Belfast		

At least one day's notice, preferably in writing, should be given to these centres before attending for inoculation.

[illegible] made in Pay Books (S 43A) as well [illegible] Medi[illegible]

[illegible] eg the inoculation is to keep also [illegible] of each [illegible] initialled by the officer or rating [illegible] as evidence that he has [illegible] Certificates are valid for four years which is the estimated dura[illegible]

[illegible] preserving the vaccine and the technique of injection which [illegible] are described in Article 7 of R N Medical Bulletin No 1 *h Revised 1 1 Edit 1417 Cl 13*)

(A F Os 1310/47 and 1500 47 are cancelled)

4083.—Yellow Fever—Protective Inoculation for Personnel Proceeding to the East Indies Station

(M D G 27084/47 —14 Nov 1947)

All personnel proceeding to the East Indies Station (including those destined for shore establishments) from the United Kingdom are to be inoculated against yellow fever prior to leaving the United Kingdom

(A F O 4062/47)

4084 —Officers and Ratings of the T A S Branch—Selection and Aural Care

(N 2 N 14613 47 —14 Nov 1947)

In order that audio apparatus may be operated with full efficiency it is necessary to ensure that the officers and ratings concerned conform to certain aural standards Failure to attain these standards will not prejudice a candidate s fitness for general service as the assessment for general service is based on a different test

2 *Standard of Hearing* —All candidates for the T A S branch should fulfil the following conditions

(*a*) *Acuity* —Have good auditory acuity over the frequency range of 250 to 4 000 cycles per second (c/s)

(*b*) *Discrimination* —Attain a pitch discrimination of 30 c/s either side of a basic note of 1 000 c/s

3 To fulfil condition (*a*) above (acuity) the candidates must have a hearing standard with no more than the following loss —

Frequency	*Maximum permissible average loss for both ears*	*Maximum permissible loss in either ear*
250–3 000 c/s	20 decibels	20 decibels
4 000 c/s	20 decibels	30 decibels

Results are to be plotted on an audiogram A moderate amount of asymmetry is acceptable

4 As regards condition (*b*) above (discrimination) a candidate who does not attain a pitch discrimination of ± 30 c/s on first testing but who can attain a discrimination of ± 40 c/s will not be disqualified in the first instance Such candidates will be re tested two weeks after commencing audio operating and must then conform to the above standard

5 Although a healthy ear is desirable many candidates can be considered who have ear drums showing slight scarring chalk patches and even healed perforations If such a candidate s acuity and discrimination are within the limits laid down and he has not required any ear treatment other than for removal of wax for the past five years then he may be passed as aurally fit

6 *Pressure of Audiometers* —It is necessary for the above acuity and discrimination tests to be carried out on Audiometers Mark I and Mark III (to be replaced by one instrument the Audiometer Mark IV) At present aural tests can be carried out in the following establishments —

H M S Victory Portsmouth
H M S ' Osprey ' Portland
R N Barracks Chatham
R N Hospital Plymouth

Abroad [illegible] they are likely [illegible] at the T A S [illegible] will be [illegible]

7 *Sub L* [illegible] required to [illegible] T A S [illegible] rank of Lieutenant [illegible] report [illegible] results These officers are [illegible] next [illegible] information will announce the [illegible] T A S Control Officer and will be taken into [illegible] regularization is received It is not [illegible] T A S Lieutenants since many will not be [illegible] A/S duties

8 *Periodical Examination of the Ears* — On [illegible] T A S Branch are to have their ears tested [illegible] establishment Copies of instructions [illegible] as follows —

Officers H M S [illegible]
Ratings The T A S [illegible]

A failure to reach the required standard [illegible] necessarily until [illegible] to general service as there are appointments [illegible] in the branch for those records are marked B A S (b) [illegible] It will however restrict their employment on A/S duties at sea

9 *Periodical Examination of the Ears* — [illegible] of the T A S Branch are to have their ears examined by a medical [illegible] months in order to discover and correct any irritation caused by [illegible] especially in hot climates) disease wax or any other condition which [illegible] than usual efficiency Personnel in small ships not carrying a medical [illegible] a depot ship or base medical officer for this purpose

It is the responsibility of the ships T A S or A S Control Officer to ensure that these periodical examinations are carried out [illegible] and the fact that they have been carried out is to be noted in Section 1 of the [illegible] Log and Progress Book

10 *Care of the Ears* —Experience has shown that certain types of gunblast causes deafness to the higher frequencies which may increase with time especially if exposed to further injury Instances may occur if T A S ratings having to relinquish their Part 2 qualification due to loss of hearing, either temporarily or permanently by gunfire

11 T A S ratings who are exposed to gunblast must be supplied with ear defenders authority for an initial free issue of one pair of ear defenders for those concerned is contained in paragraph 4 of A/F O 7683/45 (Men holding the rate of T D 2* are not to be exposed to gunblast)

12 It is possible that a form of blast deafness either temporary or permanent can be caused by the transmission of the noise of the underwater explosions through the audio earphones T A S ratings should be warned of this and instructed to push their head phones forward off their ear on hearing a warning that charges will be fired and to replace them as soon as possible after the detonation of the last charge

(*A F O 7683/45*)

(*A F Os 2962/46 and 256 47 are cancelled.*)

4012 —Medical and Dental Officers R N V R.—Grant of Short Service Engagements in Royal Navy

(P M /C.W 62578 46 —14 Nov 1947)

Consequent on the decision to discontinue the grant of extended service engagements after the 30th June 1947 the following conditions under which R N V R medical and dental officers at present serving may after that date be accepted for further service are promulgated for information

(i) The engagement will be for Short Service for a period of four years

(ii) Officers who satisfactorily complete the full period of four years will receive a gratuity as follows —

Medical officers £600 } free of tax
Dental officers £300 }

(iii) [illegible] complete the full period of four [illegible] as a result of invalidin[illegible] due to their own default will [illegible] eligible for gratuities on a pro[illegible] basis

(iv) Officers accepted will be transferred to the Royal Navy but will be allowed to count former R N V R service for purposes of pay and promotion they will also be eligible for an antedate of seniority in respect of civil hospital time up to a maximum of 12 months with effect from the date of the commencement of the short service engagement

(v) Officers leaving the Service on the expiration of the short service engagement will be placed on an emergency list and will be liable for service in war or emergency during the subsequent four years.

(vi) The date of the commencement of the short service will be at Admiralty discretion and will normally be the date of acceptance of the application

2 Applications are invited from R N V R medical and dental officers with over six months service Each application should be forwarded with the recommendation of the Commanding Officer together with a medical certificate that the applicant is medically fit for general service

3 Attention is drawn to the fact that such officers will be eligible for transfer to the permanent list of R N medical or dental officers at any time during the period of the short service engagement Officers who transfer to the permanent list will *not* be eligible for a short service gratuity but on retirement or withdrawal will become entitled to retired pay or gratuity as for other permanent officers

(*A F Os 5412/46 and 5423/46*)

(*A F Os 3257/47 and 3517/47 are cancelled*)

4176 —Medical Organization for Action—Amendment

Emergency Operating Stations and First Aid Posts

(D 25218/47.—28 Nov 1947)

A F O 1882/47 is to be *amended* as follows —

Paragraph 11(10)

Sub-section (*a*) *Delete* or re-construction

Delete sub section (*b*) and *substitute* as follows —

(*b*) *Ships of the following classes in commission* —

(1) Battleships	Vanguard and King George V
(2) Cruisers	Swiftsure Belfast Fiji Southampton "Uganda and Dido"
(3) Aircraft Carriers	
(4) Fleet Destroyers	Battles, Weapons and Fleet Troubridge ' to Crescent" classes
(5) Frigates	Modified Black Swan Bay ' Loch and River classes
(6) Depot Ships	Destroyer and Submarine
(7) Minesweepers	
(8) Surveying vessels	

The scheme is to be prepared by Commanding Officers existing facilities being developed and additional stores demanded as necessary provided that Naval Stores are not in excess of the present allowances given in the Establishment of Naval Stores Work should as far as possible be carried out by ships staffs Where dockyard work is necessary to meet requirements Forms S 1182 are to be forwarded in accordance with A F O 891/47 paragraph 2(*a*) giving details of the proposed work to be undertaken Such work is to be kept to a minimum and if finally approved the classification will be C

Insert new subsection (*c*) as follows —

(*c*) *Remaining Ships* —The principles should be followed as far as possible but work is to be restricted to that which can be carried out by ships staffs

(*A F Os 892 47 and 1882 47*)

4186.—Prizes—North Persian Forces Memorial Medal 1947 for Papers on Tropical Medicine

(M D G 35545/47.—28 Nov 1947.)

The North Persian Forces Memorial Medal is awarded annually for the best paper published in any journal on tropical medicine or hygiene. Medical officers of under twelve years service of the Royal Navy, Royal Army Medical Corps, Royal Air Force, Indian Medical Service in Colonial Medical Service are eligible to compete.

2. Medical officers desiring to compete should forward to the Medical Director General not later than 31st March 1948 those papers which have been published on the subject during the year ending 31st December 1947.

(*A F O 5316/46 is cancelled.*)

4225.—Dental Appliance Work—RETURNS

(M D G /35162/47.—28 Nov 1947.)

A half yearly return of dental appliance work is no longer required.

2. Form M 240 Return of Dental Appliance Work is to be rendered on the 1st of each month as hitherto and is the only return relating to dental appliance work now required.

(*A F O 2165/47.*)

4260.—Sutton Emergency Hospital—Admission of Psychiatric Cases

(M D G 36149/47.—5 Dec 1947.)

Application for admission of cases of neurosis or early psychosis arising among Royal Naval ratings and R M other ranks may be made to the Medical Superintendent of the Sutton Emergency Hospital, Brighton Road, Sutton, Surrey. Telephone Vigilant 0064.

2. Such cases must not be noisy in any way or suicidal and a psychiatric report on the case must first be sent to the Medical Superintendent to decide if the patient is suitable.

(*A F O 6536/46 is cancelled.*)

4347.—Manpower Re-allocation—Dental Examination on Dispersal—Form M 15a

(M D G 35871/47.—12 Dec 1947.)

Attention is drawn to the 1947 edition of the Release Instructions B R 1281 (1) (47) paragraph 103 regarding the place of final dental examination.

The dental examination of officers and ratings on dispersal is to be undertaken at the individual's dispersal centre and *not* in the ship or establishment in which they are serving.

(*B R 1281(1)(47).*)

4350.—Sickness Ratings Risk and Expense Form—B 25

(M D G 35870/47.—12 Dec 1947.)

There have been frequent instances in recent years of ratings (including W R N S ratings) being allowed to seek private medical treatment and to continue this treatment in excess of the emergency measures allowed by K R & A I Article 1440.

2. This practice has resulted in claims being made on the Admiralty for payment, or refunds of the expenses incurred. Although plainly contrary to Regulations it has been found impossible to resist all these claims because the individual has been allowed to remain under this treatment without being reminded of his full responsibility for the costs incurred; this has been interpreted as official concurrence in the action. Moreover sufficient medical supervision has been lacking resulting in lengthy periods of sickness.

3. Steps are to be taken to ensure that medical treatment of ratings sick ashore is directed as soon as and whenever practicable into Service channels or if this is not practicable to Admiralty Surgeons and Agents. Whenever hospital treatment is indicated Service sources of M S facilities are to be considered.

4. If a rating or someone on his/her behalf makes arrangements and clients private practitioner or private hospital or nursing home treatment a signed statement accepting the risk and expense of such treatment (Form B 25) is to be signed and held on file at Establishment against subsistence being made for the expense.

5. The use of Form B 5 is to be discontinued except in certain cases for shore

establishments and W R N S personnel only and established s[illegible] concerned

(K R & A I 1440)

(A F O 4720/43 is cancelled)

4424 —Diagnosis of Sickness—Reference to in Signals by [illegible] Nosological Tables

(M D G 18177 47 —19 Dec 1947)

It occasionally happens that instead of an actual diagnosis her[illegible] a Nosological Number is given This number appears to be [illegible] of the disease in the Nosological Table of the Medical Officers J[illegible] M 179D) Ve these tables are liable to alteration such coding is [illegible] ned may [illegible] dangerous

2 The practice is to cease Where it is desired that particular [illegible] ral ere to be regarded as private particular attention should be given to the grid eg of the message in [illegible] with current regulations

4426 —Injury Cases Discharged to Hospital—Details

(M D G 37169 47 —19 Dec 1947)

The attention of medical officers discharging cases of injury to hospital is drawn to [illegible] —

(a) Giving a complete history on M 188 stating also if the injury was sustained on duty

(b) Noting on the Medical History Sheet whether or not the injury was sustained on duty

(c) Complying with the provisions of K.R and A.I. Article 1419 in respect of the issue of Hurt Certificates

4441 —W R N S.—Treatment of Gynaecological Disorders in Emergency Medical Service Hospitals

(M D G 34687 47 —19 Dec 1947)

Members of the W R N S requiring in patient treatment for gynaecological disorders and who cannot obtain that treatment from Service sources may be referred to —

(a) Any E M S hospital in England Wales or Northern Ireland in which there is a gynaecological out-patient department or

(b) any of the following E M S hospitals in Scotland

South Eastern District	Bruntsfield Hospital Edinburgh
	Western General Edinburgh
	Bangour Hospital Broxburn
Eastern District	Bridge of Earn Hospital Bridge of Earn
	Stracathro Hospital Brechin
Western District	Hairmyres Hospital East Kilbride
	Ballochmyle Hospital Mauchline
Northern District	Royal Northern Infirmary Inverness
	Raigmore Hospital Inverness
North Eastern District	Stracathro Hospital Brechin

(A F Os 2021/43 2945/43 151/44 2061/44 and 3279/44 are cancelled)

4499.—Workpeople—Injured on Duty and in Hospital—Free Travel Warrants for Next-of-kin

(L 482/47 —19 Dec 1947)

A workman who as a result of injury on duty is receiving treatment in a hospital at a distance from his ordinary place of duty may be granted for issue to his next of kin two free travelling warrants a year to enable that relative to visit him in hospital

2. Adequate steps should be taken to safeguard this privilege against abuse The condition of at a distance should be reasonably interpreted but warrants for journeys under nine miles should not normally be issued

3 These travel warrants are distinct from and in addition to those authorized by A F O 6714/46

(A F O 6714/46)

OBITUARY

We regret to report the following deaths and extend [illegible] their [illegible]

Surgeon Rear Admiral Sir GEORGE WELLCH *C B* [illegible] on 26th October 1947 Born in 1858 he entered the Royal Naval Medical Service as Surgeon in 1884 Promoted to Staff Surgeon in 1896 and to Fleet Surgeon in 1905 he became Deputy Inspector General in 1910 and Surgeon Rear Admiral in 1911 Surgeon Rear Admiral Welch served at Medical Department from 1899 to 1906 [illegible] Deputy Medical Director-General from 1912 to 1916 He served as the Medical Officer in Charge R N Hospital, Haslar from 1916 to 1918 He was awarded the Italian *C B* on 1st July 1917 and the *K C M G* on 2nd January 1918 in recognition of [illegible] services during the First World War

Surgeon Captain F G GOBLE R N (Rtd) died at Hastings [illegible] on 1st November 1947 Born in November 1879 he qualified in 1904 and entered the Medical Service as a Surgeon in 1906 He was promoted to Surgeon Lieutenant Commander in 1914 and to Surgeon Commander in March 1918 Surgeon Captain Goble was placed on the Retired List (medically unfit) in July 1926

Surgeon Captain B S ROBSON R N died on 19th December 1947 at Inverness Born in 1880 he qualified in 1904 and entered the Service as a Surgeon in the same year He was promoted to Surgeon Lieutenant-Commander in 1912 and to Surgeon Commander in 1917 Surgeon Captain Robson was placed on the Retired List in 1930 but from 1933 he served as F R M O Newcastle G O M D writes

"At College he was a keen rugger player and played for the University at tennis he was well above the average I did not meet him for some years prior to his death but his sense of humour and ready wit his tendness to enter all activities of the Mess and his manly blunt character made Brit Robson a friend worth knowing"

Surgeon Captain A I SHELDON R N died on 24th December 1947 at Southsea Born in 1877 he graduated in 1900 and entered the R N Medical Service as a Surgeon in the same year He was promoted to Staff Surgeon in 1908 and to Surgeon Commander in 1914 he was placed on the Retired List in 1927 During the First World War Surgeon Captain Sheldon served on the Home and W Indies Stations

Surgeon Captain J M GORDON R N (Rtd) died on 31st December 1947 at Newcastle Born in 1879 he qualified in 1902 and entered the R N Medical Service as a Surgeon in 1904 He was promoted to Surgeon Lieutenant Commander in 1912 and to Surgeon Commander in 1917 Surgeon Captain Gordon was placed on the Retired List in 1929 but was recalled to the Service during the recent war when he served with the "Y" Board at Edinburgh At the time of his death he was F E M O Newcastle

DEGREES

Diploma in Anaesthetics

Surgeon Lieutenant-Commander A O Connor R N

TRANSFERS TO THE PERMANENT LIST

Surgeon Lieutenant G G Wallis transferred to the Permanent List 1st October 1947

Surgeon Lieutenant (D) R Gledhill transferred to the Permanent List 1st October 1947

Surgeon Lieutenant F R Aston transferred to the Permanent List 3rd November 1947

Temporary Surgeon Lieutenant (D) R R B Gjertsen transferred to the Permanent List 10th November 1947

TRANSFERS TO SHORT SERVICE COMMISSIONS

Acting Surgeon Lieutenant W I H Bourne R N V R transferred to a Short Service Commission 20th October 1947

Temporary Surgeon Lieutenant T A O Halloran R N V R transferred to a Short Service Commission 18th November 1947

Surgeon Lieutenant Commander S D Moss R N V R transferred to a Short Service Commission 24th November 1947

Temporary Surgeon Lieutenant G R Wheldon R N V R transferred to a Short Service Commission 1st December 1947

Surgeon Lieutenant Commander (D) A B Bateman R N V R transferred to a Short Service Commission 12th December 1947

PROMOTIONS

Surgeon Captain L. F Strugnell promoted to Surgeon Rear Admiral 14th December, 1947

Surgeon Lieutenant Commander (D) F A Pearse promoted to Surgeon Commander (D) 21st September 1947

Surgeon Lieutenant-Commander F W Baskerville, promoted to Acting Interim Surgeon Commander 16th October 1947

Surgeon Lieutenant-Commander C J P Pearson promoted to Acting Interim Surgeon Commander 16th October 1947

Surgeon Lieutenant Commander I C MacDonald promoted to Acting Interim Surgeon Commander 16th October 1947

Surgeon Lieutenant Commander W H C M Hamilton promoted to Acting Interim Surgeon Commander 16th October, 1947

Surgeon Lieutenant-Commander P G Burgess promoted to Acting Interim Surgeon Commander 16th October 1947

Surgeon Lieutenant (D) W E A Watson promoted to Acting Interim Surgeon Lieutenant-Commander (D) 17th October 1947

Surgeon Lieutenant Commander E H Murchison promoted to Acting Interim Surgeon Commander 3rd December 1947

Surgeon Lieutenant-Commander N S Hepburn promoted to Acting Interim Surgeon Commander 18th December 1947

Surgeon Commander S G Weldon promoted to Surgeon Captain 31st December 1947

Surgeon Commander E B Pollard promoted to Surgeon Captain 31st December 1947

Surgeon Commander R. G Anthony promoted to Surgeon Captain 31st December 1947

Surgeon Commander (D) F R P Williams *O B E* promoted to Surgeon Captain (D) 31st December 1947

Surgeon Lieutenant Commander (D) H V Pell promoted to Surgeon Commander (D) 31st December 1947

Surgeon Lieutenant Commander F J Goldsworthy promoted to Surgeon Commander (D) 31st December 1947

Surgeon Lieutenant-Commander J C. Beason promoted to Surgeon Commander (D) 31st December 1947

Surgeon Lieutenant-Commander W G Furnie promoted to Surgeon Commander (D) 31st December 1947

Surgeon Lieutenant-Commander T P Ellis *O B E* promoted to Acting Interim Surgeon Commander 8th January 1948

Surgeon Lieutenant Commander C H C R Critien promoted to Acting Interim Surgeon Commander 8th January 1948

Surgeon Lieutenant N S Marsden, promoted to Acting Interim Surgeon Lieutenant Commander 8th January 1948

RETIREMENTS

[illegible] Captain A W Gunn *M I G* placed on the Retired List (age) and reappointed 15th November 1947

Surgeon Captain (Rtd) R J Inman reverted to the Retired List (medically unfit) 15th January 1948

Surgeon Rear Admiral A T Malone *C B K H P* placed on the Retired List and released 8th February 1948

Surgeon Captain A W North *O B I* placed on the Retired List (age) date to be reported

ENTRIES FOR SHORT SERVICE COMMISSIONS

W B Willder L R C P & S L R F P S entered as Acting Surgeon Lieutenant for Short Service Commission 10th October 1947

J. Calder M B Ch B. entered as Acting Surgeon Lieutenant for Short Service Commission 24th October 1947

K. G Jarrett L D S R C S entered as Acting Surgeon Lieutenant (D) for Short Service Commission 24th October 1947

P A Jones D D S entered as Acting Surgeon Lieutenant (D) for Short Service Commission 31st October 1947

B G Holmes Newsome L D S entered as Acting Surgeon Lieutenant (D) for Short Service Commission 28th November 1947

T T Chapman M B B Ch. entered as Acting Surgeon Lieutenant for Short Service Commission 28th November 1947

P J Preston M R C S L R C P entered as Acting Surgeon Lieutenant for Short Service Commission 16th January 1948

ROYAL NAVAL VOLUNTEER RESERVE

PROMOTIONS

Surgeon Commander G McColl *O B E* promoted to Surgeon Captain 31st December 1947

Surgeon Lieutenant Commander P G C Martin promoted to Surgeon Commander 31st December 1947

Surgeon Lieutenant Commander (D) K V M Taylor Milton promoted to Surgeon Commander (D) 31st December 1947

RETIREMENT

Surgeon Captain R G Henderson *C B E* appointment and temporary commission terminated 1st January 1948

ENTRIES

J D Bowie L R C S L R F P S entered as Probationary Temporary Acting Surgeon Lieutenant 10th October 1947

I M Ormerod M B B Ch entered as Probationary Temporary Acting Surgeon Lieutenant 10th October 1947

M G Davys B M B Ch entered as Probationary Temporary Acting Surgeon Lieutenant 10th October 1947

N O Bennett M R C S L R C P entered as Probationary Temporary Acting Surgeon Lieutenant 24th October 1947

G L Park L R C P & S L R F P S entered as Probationary Temporary Acting Surgeon Lieutenant 21st November 1947

J R S Hutchison M B Ch B entered as Probationary Temporary Acting Surgeon Lieutenant 21st November 1947

J H S Buchanan M B B Ch entered as Probationary Temporary Acting Surgeon Lieutenant 28th November 1947

W B Whowell M B B S entered as Probationary Temporary Acting Surgeon Lieutenant 28th November 1947

B K Webb M B C S L R C P M B B S entered as Probationary Temporary Acting Surgeon Lieutenant 12th December 1947

A H G Manley M B C S L R C P entered as Probationary Temporary Acting Surgeon Lieutenant 14th December 1947

W Less M B Ch B entered as Probationary Temporary Acting Surgeon Lieutenant 16th January 1948

J H D Evans M R C S L R C P entered as Probationary Temporary Acting Surgeon Lieutenant 16th January 1948

QUEEN ALEXANDRA'S ROYAL NAVAL NURSING SERVICE

TRANSFERS TO THE PERMANENT LIST

Miss M Liston Nursing Sister Q A R N N S Reserve transferred to Permanent Service in rank of Nursing Sister 1st December 1947

Miss J D Riddell Nursing Sister Q A R N N S Reserve transferred to Permanent Service in rank of Nursing Sister 17th December, 1947

Miss B Magson Nursing Sister Q A R N N S Reserve transferred to Permanent Service in rank of Nursing Sister 17th December 1947

Miss S M Honston Nursing Sister Q A R N N S Reserve transferred to Permanent Service in rank of Nursing Sister 17th December 1947

Miss M M St L Hurst Bannister Nursing Sister Q A R N N S Reserve transferred to Permanent Service in rank of Nursing Sister 17th December 1947

PROMOTIONS

Mrs J E Simpson *A R R C* Nursing Sister Q A R N N S promoted Acting Senior Sister 14th November 1947

Miss J K Gillanders *R R C* Senior Sister, Q A R N N S promoted Matron 27th November 1947

Miss A M Taylor *R R C* Senior Sister Q A R N N S promoted Matron 27th November 1947

Mrs H B Dutton *R R C* Nursing Sister Q A R N N S promoted Senior Sister 27th November 1947

Mrs K M Crainwood *A R R C* Nursing Sister Q A R N N S promoted Senior Sister 27th November 1947

RETIREMENTS

Miss M S Jackson Nursing Sister Q A R N N S appointment terminated 25th June 1947

Miss I J S Muirhead Nursing Sister Q A R N N S appointment terminated 10th December 1947

WARDMASTER OFFICERS

TRANSFERS TO THE PERMANENT LIST

[illegible] Warrant Wardmaster R C Brown transferred to Permanent List with [illegible] Warrant Wardmaster 14th November 1947

[illegible] Warrant Wardmaster W G Saunders transferred to Permanent List [illegible] Warrant Wardmaster 13th November 1947

[illegible] Warrant Wardmaster G B Narramore transferred to Permanent List [illegible] Warrant Wardmaster 13th November 1947

[illegible] Warrant Wardmaster W P Silk transferred to Permanent List with [illegible] Warrant Wardmaster 13th November 1947

PROMOTIONS

Warrant Wardmaster (Acting Commissioned Wardmaster) R. V. J. Chapman promoted to Commissioned Wardmaster 1st October 1947

Warrant Wardmaster (Acting Commissioned Wardmaster) A. Gorrie promoted to Commissioned Wardmaster 1st October 1947

RETIREMENT

Temporary Acting Warrant Wardmaster J. E. Evans placed on Retired List (medically unfit) 23rd December 1947. Confirmed in rank of Warrant Wardmaster with original seniority of 14th November 1944

Preparations

CURARE FILM

A FILM on *d* tubocurarine chloride prepared by the Wellcome film unit received its first showing at the Wellcome Research Institution on 19th February. In colour the film demonstrates very clearly the effect of the drug both experimentally and in surgical practice. It is now available for exhibition to practitioners and students. Application for copies should be made to the Wellcome Film Unit, The Wellcome Research Institution, 183–193 Euston Road, London, N.W.1.

Notice

The Editors invite medical officers to send in original papers on professional subjects [illegible] personal experiences &c. Items of news and matters of interest to the naval medical service will be welcomed from ships and establishments on home and foreign stations. Notices of births marriages and deaths are inserted free of charge to subscribers.

All articles or communications published in the JOURNAL OF THE ROYAL NAVAL MEDICAL SERVICE will become the property of the Journal with full copyright powers unless the author declares when sending the article that he desires to reserve the copyright to himself.

The Harvard system should be employed for bibliographical references these references being arranged in alphabetical order of the authors names at the end of the contribution thus Smith F G (1935) *J roy nav med Serv* **22** 53 In the text a reference to a publication should be cited by giving the author and in brackets the date thus Smith (1935) believed this to be due &c.

All communications should reach the Editors on or before the first of the month preceding the date of issue. Unless clearly written they should be typed in order to avoid mistakes and they should be addressed to the Editors JOURNAL OF THE ROYAL NAVAL MEDICAL SERVICE Monckton House Alverstoke Gosport Hants.

The Journal is published quarterly four numbers comprising one volume.

The subscription is 20s per annum (postage included) payable on 1st January of each year but should a subscriber wish to commence at another quarter he may do so by payment at the rate of 5s per copy. All subscriptions are payable in advance. Single copies can be obtained at 6s per copy. Cheques or postal orders for subscriptions should be crossed Lloyds Bank Ltd and be made payable to the Manager JOURNAL OF THE ROYAL NAVAL MEDICAL SERVICE Monckton House, Alverstoke Gosport Hants, to whom all communications relating to subscriptions &c should be addressed.

The payment of subscriptions by banker's order is recommended as it relieves the subscriber of the necessity of forwarding a cheque each year and simplifies the keeping of accounts.

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Journal

of the

Royal Naval Medical Service.

Editorial

As was anticipated in the Editorial of the last issue of the Journal of the Royal Naval Medical Service the editorship has now been taken over by the staff of the Royal Naval Medical School Menckton House Alverstoke Gosport As our readers are aware there has been a considerable delay in the publication of the various issues In order to rectify this unfortunate state of affairs this publication includes both the April and July issues It is hoped that the October number can thus be published up to date

The Editors would like to point out that in order to keep the Journal of the Royal Naval Medical Service up to date we must have sufficient material It would therefore be of great assistance if subscribers would submit articles of professional interest travel gossip and sport &c

Articles

THE ROYAL NAVAL HOSPITAL AT HASLAR NEAR GOSPORT

THE following short account of what a naval hospital was like one hundred and sixty years ago may be of interest especially to those who have served at Haslar. It is abstracted from Lazarettos in Europe by John Howard F.R.S. published in 1789. This book was kindly loaned by Miss R. Verdin Commandant V.A.D. from her family library.

I always found this *well conducted* hospital remarkably clean and quiet, and (what is very different from the practice in the county hospitals) none of the floors were sanded, but dry rubbed and the windows on all the staircases were open.* The patients have white linen shirts and the hospital clothes, and the linen of the beds is white. In this hospital there are about eighteen hundred beds, nineteen or twenty in a room, in a ward. The wards are sixty feet by twenty four and the bright twelve feet on the floor, and [illegible] the ceiling, and the arcades below are twenty four feet wide. All the nurses here [illegible] the hospital at Plymouth are women, which is very proper as their attention [illegible] and their patients are sick, paying men. Visitors are admitted very properly only in two days in a week. The staircases are spacious. The floors are wood. The rises are too high, and there is a hand rail on the wall. The *private* sewers are [illegible]. There are no *cisterns* in the wards, the pipes by which they are supplied with water both for drink and washing, adjoin (*adeliunt*) to the sewers. The bed cells for lunatic patients are too close and badly situated. The ceiling, the floors are too low (seven feet) when the hospital is now cooled it must be [illegible] with the additional expense. To each wing there should be a sea bath, and [illegible] *absolutely necessary* through the centre of the *front* of the wings. There are [illegible] pertures at the passages near the ceiling, they would keep the wards fresh at night. There are several of the wards, there are cellars for wood, lumber, &c. which are [illegible] in case of fire. For security against fire and infectious disorders I prefer the hospital at Plymouth.

Some of the principal offices such as the dispensary, water works, washhouse, bedhouse, and lunatic cells are very *properly* detached buildings.

The following REGULATIONS and ORDERS were hung up in the *Wards* —

REGULATIONS

Respecting the NURSES *and other* SERVANTS *of the* ROYAL HOSPITAL *at* HASLAR.

ORDERED

I. That the [illegible] nurses or other servants in the hospital do conceal the effects of the patients, or carry away therefrom any parts of such effects, nor to be guilty of any [illegible] after the decease of the patients to the agent or his clerk in the hospital, under the wards.

II. That no [illegible] bedsheets or bundles of any kind belonging to the patients be received or kept in any of the wards or nurses cabins but carried to the bed house.

III. That no bottles, or rags be thrown out of any window, or down the boys, but carried to the places appointed for that purpose, and no any chamber of the patients [illegible] to be hung out of any of the windows of the house.

IV. That no bedsheets, nor other sheets or shirts be kept in the cabins or in the [illegible] but carried to the matron in order to its being carried to the wash house, and the nurses to obey the orders of the matron in punctually shifting the bedsheets and both linen of the patients viz. their sheets and shirting, their shirts.

* In *Emdeling*, since informed me that he had the sash windows on the staircases [illegible] to prevent them being shut

[illegible] days their night caps drawers and stockings once a [illegible] necessary

V [illegible] person do wash in the water closets

VI That no hospital dress [illegible] any part of that dress be carried out [illegible] small pox wards into other wards or into the messes [illegible] any part of their wearing apparel this in these wards and the patients [illegible] to wear the hospital night caps out of their proper wards but [illegible] the physicians or surgeons

VII That dead bodies be not left longer in the wards or lobbies than [illegible] ordered by the physician or surgeon or the expiration of which [illegible] they are to be carried to the dead house

VIII That no nurse do [illegible] any patients on any pretence whatsoever [illegible] not suffer any person to remain in the night [illegible] bed [illegible]

IX. That any nurse concerning the [illegible] any patient from her [illegible] not made due report to the [illegible] suffered to be lurking in [illegible] be discharged from the hospital upon proof thereof

X That all nurses who disobey the matrons orders get drunk neglect [illegible] quarrel or fight with any other nurses or patients in the [illegible] and cautiously reveal to the surgeons officers of the hospital [illegible] mitted by the patients in their wards (such as drinking, smoking tobacco in wards quarrelling, destroying the medicines or stores, begging or purloining neglecting their cure) by reminding the slashing of the service of the house [illegible] note made against their names on the books of the hospital that they [illegible] never more be employed

XI That the nurses take care to prevent the patients from lying down in their beds with their clothes on or having their wearing apparel on their bodys in their [illegible] or any bread butter or provisions of any kind upon the heads of their [illegible] or about their beds and that no victuals be dressed in the wards

XII That if any nurse are taken ill in the recovery ward so as to be obliged to take to their beds the nurses do acquaint the assistant in waiting therewith that it may be immediately removed to that shall be judged necessary

XIII That the nurses provide themselves always with a sufficient quantity of [illegible] drinks for the patients as are ordered and when they cannot be got that they acquaint the physician or surgeon therewith [illegible] the lower flux and small pox wards gruel and panada are constantly to be kept ready both night and day and in these wards a small chief of the upper part of some one or more of the windows is constantly to be kept open so as of a night gently to move the flame of a candle when standing on the table unless otherwise ordered by the physician The proper patients only are to come into these wards and no others whatever

XIV That no cards or gaming of any kind be permitted in the hospital

XV That such nurses as can be spared by the matron go to chapel every Sunday, and that the nurses take care that such patients as are able to attend divine service wherever it is performed and report to the physician or surgeon such persons as neglect going there

XVI That no person whatever be permitted to sell wine brandy strong beer or other liquors nor any articles whatsoever either within the hospital or its bounds

XVII That no bill be made for any patient without have first had in writing from the physicians or surgeons and that no officer assistant clerk matron nurse or any person whatsoever belonging to the hospital shall accept any bill made to their lenver

ORDERS

To be observed by the PATIENTS *in the* ROYAL HOSPITAL *at* HASLAR

I No one shall be guilty of blasphemous expressions cursing swearing cursing drunkenness uncleanness lying, or other scandalous actions to the corruption of good manners and in derogation of GOD'S honour

[illegible] ficers of the hospital [illegible]

[illegible] shall leave

[illegible] shall [illegible] or than [illegible]

[illegible] through [illegible]

[illegible] the [illegible]

VIII. [illegible] shall [illegible]

IX. No patient [illegible] shall [illegible] report [illegible]

X. All the patients [illegible] to be behaved and [illegible] will be [illegible] plumbing [illegible]

[illegible] *Medical* [illegible] Hospital [illegible]

DIET AT HAVLAR HOSPITAL

I. LOW DIET. Water gruel [illegible] rice gruel milk pottage or broth and bread and butter if necessary. *Breakfast* toast and water [illegible] or white decoction.

II. HALF DIET. For *breakfast* milk pottage; for *dinner* half a pound of mutton or light bread pudding or in lieu of it some greens; a pint of broth; one pound of bread; one quart of small beer; the men upon this diet to dine in their wards.

III. FULL DIET. *Breakfast* as above; for *dinner* one pound of meat; one pint of broth; one pound of bread; three pints of small beer; *supper* in the two last and [illegible] to be of broth [illegible] dinner; or if thought necessary to be of milk porridge.

IV. Milk, barley water, orange and lemon water, tamarind whey and water, vinegar [illegible] sage tea. These to be discretionally ordered by the physician and [illegible]

THE ANTARCTIC EXPEDITION FROM A MEDICAL ANGLE[1]

BY

Surgeon Commander E. W. BINGHAM, *O.B.E.*, M.B., B.Ch., R.N.

At first sight it might appear that there was little for a medical officer to do in the Antarctic and that he is only taken as a precaution in case of accidents or sickness. This is partly the case in that the doctor is included more because he is one than specifically as one, but that is by no means how it works out.

[1] Reprinted from *Medical Press & Circular*, 3rd March, 1948.

The ideal medical man for an expedition should be a practical psychologist not by any means the highly specialized psychiatrist but a man of sound judgment able to size up his fellows with a tolerant sympathetic nature and capable of recognizing mental strain in a companion.

During the long isolation of an Antarctic expedition a doctor of the right type will prove himself invaluable merely by lending a ready ear to the pent up grouses and grievances which are bound to arise and which so rapidly subside when voiced to the level-headed confidant.

Preventive medicine has a very definite place in Antarctic work and at times takes peculiar guises. For example the construction of the base house has much to do with the morale of its inmates. I am a strong believer in the open bunk room type of house where life is public in the extreme. Naturally this room should be well lighted and as comfortable as possible but my experience has been that where men live a busy life in surroundings where they can have no personal contacts other than those of their own party the more public the type of living quarters the better.

I know that opinions on this point vary but I am convinced that less petty irritations arise under these conditions than where the individuals have separate or two bunk rooms to which they can retire and brood over their imagined or real grievances. Working on these principles I have always where possible insisted on the open type of house and experience has given me no reason to change my opinion. Actually my experience on these expeditions has been that there is remarkably little friction of any kind. It is the doctor of course who knows about these private irritations as they would never be confided to the leader and for this reason I refused to act as medical officer as well as take command of my last Antarctic expedition.

The doctor's troubles start before he leaves the United Kingdom in fact as soon as he starts to consider what equipment he should take. Transport facilities are very limited and on all sides he is advised to take as little as possible. The old hands will tell him no one is ever ill in the Antarctic but this is not very reassuring to the inexperienced in these regions who knowing of the complete isolation feels he should be prepared for every eventuality. Here well I remember being instructed to collect the medical equipment for my first venture of the Polar Regions. Special outfits for sledging parties were required in addition to the main equipment. On seeking advice about these sledging kits I was referred to a well known medical museum where I was shown beautifully packed and efficient sets which seemed to solve my troubles until I was informed that they cost £47 each. Sadly I turned away as I had but recently left the expedition offices where I had been warned that the only funds available for medical gear amounted to £10. Sounds ridiculous doesn't it? But that was how the expeditions were run in the days when British exploration was mainly carried on by privately supported expeditions. On this occasion the Royal Naval Medical Service came to my rescue and we were adequately equipped on Indian system. Our sledging outfits were made up in packages and carried in someone's kitbag.

Arriving in the Antarctic further troubles confronted the medical man

While the house is being built and the stores landed his medical gear might be anywhere but is certainly nowhere convenient and he must rely on the first aid outfit from the ship. When finally the house is finished he seems in better off. Every available cubic inch seems to be allocated to something of vital importance to someone and only a small ready use outfit can be stored in the "dry pile". This is a dump of personal baggage and specialized gear which is carefully covered by a tarpaulin and during the year this in turn is mostly buried under very many feet of snow. Stowed like this the gear takes little or no harm.

This lack of contact with his equipment at first worries the newcomer but soon he begins to have confidence in the healthiness of his surroundings as sickness is almost unknown, even the common cold is practically non-existent. The sole exception occurs when possibly after the winter the members of the party feel the time has come to restock their wardrobes from the spare clothing in the "dry pile".

All hands turn to with a will to dig out the tarpaulin and everyone takes the opportunity to delve among the contents of their trunks. The almost invariable result within a day or so is an epidemic of the common cold which runs out through the party. The bacteria have lain dormant in the woollens despite the temperatures of the winter. It is a precursor of what will happen on our return to civilization. The epidemic having subsided colds are a thing of the past until the relief ship touches at the first port where any member of the expedition who is apt to catching a cold is extremely lucky and the exception.

This lowering of immunity during the time spent in the germ free atmosphere of the Antarctic presents an interesting field for research which is not being neglected. The party at present on their way to the Antarctic are equipped to carry out a systematic investigation of the flora of the human pharynx throughout the whole period of two and a half years service including the journey to and from the South. I think some of the members of this year's party were somewhat surprised and even dismayed on joining the expedition ship in London to be met by a request from the medical officer to be allowed to take a throat swab. On learning the full scope of the plan it was unimpeachable that there were many discreet inquiries as to which base the medical officer was appointed and to which they themselves. An investigation will also be carried out on clothes stored in the open for varying periods.

When ordering stores the experienced man will avoid all watery solutions as these will invariably freeze breaking the precious bottle to boot. Thinking of this I took tincture of iodine in my sledging outfits until I noticed that any patch of skin treated with iodine developed frostbite more readily than untreated skin. I believe this to be due to the spirit removing some of the natural fats of the skin so now I carry bovine powder. This I make up in tiny packets with instructions to say that the contents of the packet dissolved in the half full drinking cup will give a solution of the correct strength. The drinking cup is a peculiar receptacle to use I admit but its use means a utensil saved and this is important where every extra ounce of equipment carried means that ounce less grub and it is grub which decides the length of your journey.

[illegible] furniture but on a sledging trip [illegible] the least of [illegible] apparatus was hardly [illegible] from the [illegible] this month. Before repairs could be made the tent had to be erected and primus started so that snow could be melted for water and to heat the icy interior of the tent. Then the instruments had to be warmed so that they could be handled by the naked hands. The brandy flask was meantime shipped into an inner pocket for use later.

It is not easy to handle small instruments or thread needles with hands made clumsy by cold and heavy manual labour, but at last the job was done and my patient had the satisfaction of having the first drink of brandy extracted from my flask on a sledging journey, although I had carried a flask of medicinal brandy on every trip through three expeditions. I also felt satisfied but not for long.

I left my patient to put away the medical kit as he felt in the tent and returned to the work in hand, which was relaying our heavy loads up a steep incline ahead. Two days later, after having made camp, I noticed a strong smell of brandy in the region of my pillow, that is, my kitbag. As I found my spare socks were saturated with brandy, the flask having been roughly stowed was smashed.

It should be remembered that alcohol can be dangerous in these low temperatures. It looks exactly the same at minus 50° as at plus 60°, but what a difference to sandbag! Great care should always be taken to make sure it has reached body temperature before it is used internally. A serious accident once occurred on a sledging trip during an expedition where it was customary to drink the medicinal brandy the night before the return to base. On this occasion two men on their last night out, wishing each other luck, tossed down a tot apiece, forgetting the extremely low temperature of their drink, with naturally serious results.

I have never had to perform an abdominal operation in the Antarctic, though on one occasion I was only just saved, or perhaps I should say my patient was saved, from this ordeal as his acute attack of appendicitis subsided just before zero hour. Later in civilization his appendix was removed and encysted in it was found a small piece of peanut. Since then I have always used the shelf plates at the base, and aluminium ones on sledging trips.

On that occasion my hastily taught team were stumbling by having received their instructions, and seemed much less perturbed at the prospect of what was to come than I was, even the man who was to carry out with the anæsthetic, which was open ether, as this was before the days of evipan.

On that score the open anthracite stove in our operating theatre caused me considerable anxiety, but as the temperature outside was far below zero it had to remain. An attempt was made to lessen the danger by covering it rather as a miner's lamp is safeguarded, but our wooden house seemed to feel more inflammable than ever, and this feeling was intensified by the thought of the icy coldness outside. Our methods of sterilization of the instruments would have horrified the surgeons in this country, but they do not have to smell

ice to supply water for their operating theatre on the other hand there was little fear of the patient developing post anæsthetic pneumonia due to a long journey from the theatre to his ward One patient could be lifted on to the only available table from his bed without the orderlies moving one step

It is worth polishing up one's knowledge of dentistry before leaving for the Antarctic as this is where one is liable to gain much kudos or the reverse Extracting a tooth when the patient is firmly installed in a heavy dental chair is one thing but when he is precariously balanced on a rickety canvas seated folding chair it is quite another story Having once capsized a patient chair and all in my efforts to extract a tooth with I must confess the tooth still in position I have ever since taken the precaution of setting the back of the chair truly against a bunk or wall

It is the doctor's responsibility to see that the members of his party get their vitamins but these are so easily supplied nowadays that this task presents no difficulties though I would advise the necessary to dish out the cod liver oil in plain containers I speak with feeling

On one occasion during the British Graham Land Expedition of 1934–37 I considered that there had come to give my companions some vitamins so just before the midday meal I placed a tin of capsules on the table and announced that each member is to take two at this meal each day until further notice I was late in getting in to start my meal myself and on arrival I was greeted with yells of derision and refusals to accept the treatment After some considerable ruminations I was allowed to know the cause On the tin was printed Ensures minimal pregnancy at full time It took me some time to live that down

Actually while at the base there is little need for artificially supplied vitamins as there is a plentiful supply of seal meat If the crab eater seal is used the flavour of the meat is excellent and I have seldom met anyone who does not like it Concentrated orange juice is also supplied but the newest advance was introduced during 1945–46 when we operated a small greenhouse at the base at Marguerite Bay

This glasshouse was specially designed being double glazed and heated by a hot water system run off the workshop stove which had to be kept alight in any case As there was no soil in form of hydroponic gardening was used with considerable success Naturally during the winter months growth was slow but in the summer it was at times astounding Radishes for example were ready for eating under a fortnight from sowing Lettuce was also grown and [illegible] tries

In addition to vegetables some excellent pansies stocks and hyacinths were produced and it was a most cheering sight to see their colour when [illegible] from the everlasting whiteness outside

The supply of vitamins becomes more important during long sledging journeys when one's diet is entirely from tins It may be of interest to give the rations used during these trips The daily ration for one man whom [illegible] was as follows

Biscuits	1.7 [illegible]
Cocoa	0.8
Oats	2.0
Chocolate	2.4
Pemmican	5.6
Sugar	3.2
Yeast	0.4
Milk powder	1.6
Margarine	[illegible]
Pea flour	1.6
Total	[illegible]

[illegible] we had one dessert spoonful of [illegible] [illegible] of fat in the pemmican it will be noticed that [illegible] very great

An interesting thing to me was that be[illegible] could not be persuaded to eat fat and in fact [illegible] very rapidly Yet on the expedition I ab[illegible] al the base I found myself eating fat with relish [illegible] liking for fat

One does not often meet interesting individual cases on these expe[illegible] but we did have one during the 1945–46 season when one of the party fell 40 feet down a crevasse and stuck fast so that it was three hours before we were able to chip him out and get him to the surface During all this time he was supported by ropes which could only be passed up his forearms to just below his elbows On reaching the surface his hands and fingers were almost completely paralysed and several months treatment was required to put him right

Our series of experiments in electrical treatment using very primitive apparatus would make a story in itself

I have said little about frostbite but there is little to say No experienced traveller in Polar Regions gets frostbite unless something goes definitely wrong Carelessness leads to frostbite and no experienced man is careless in these latitudes Of course one gets temporary frostbite only skin deep and may even lose repeated layers of skin particularly over the cheek bones nose point of chin or ears but nothing serious The secret of successful cure is to warm the affected place slowly and on no account to rub it as the frozen skin is very easily damaged Temporary skin deep frostbite is best treated by merely warming the place with the natural heat of the hand and stopping as soon as the white frozen appearance has disappeared and before it becomes moist otherwise this moisture will immediately freeze again

Snow blindness is also caused by carelessness but if snow goggles are consistently worn out of doors during spring and summer the eyes should give no trouble It should however be remembered that it is not only on the sunny days when the glare is excessive that you are liable to be caught On the contrary the dull cloudy day often proves the most treacherous

[illegible] written almost entirely about the medical aspect but as I [illegible] being the doctor is taken because he is one and not only as [illegible]

[illegible] will fall to his lot as for example cooking for the usual [illegible] for each man to take his turn for a week cooking for the [illegible]

[illegible] will find himself doing much sledging as history shows [illegible] medical men have usually been included in the main sledging journeys [illegible] I hold that we think that this is one of the records the medical men of the [illegible] will maintain

[illegible] cannot do better than read a biography of that prince [illegible] medical men—Edward Wilson who earned undying fame as one [illegible] Scott's Polar Party

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X-RAY TREATMENT OF TUBERCULOUS CERVICAL ADENITIS

BY

Surgeon Commander D. R. F. BERTRAM *OBE*, R.N.

In the years preceding the last war tuberculous cervical adenitis was not commonly seen in the personnel of the Royal Navy, owing to the high physical standard demanded and the relatively small numbers involved. Such cases as did occur were usually invalided or were treated by massive dissection of the affected glands in groups prior to invalding. The rapid expansion of the Fleet brought about a marked lowering of physical standards which allied to the greater hardships of war produced a greater number of cases of this disease.

While visiting a London Hospital in 1942 I was much impressed by the results obtained by medium X-ray therapy and took the opportunity of [illegible] technique employed. With the installation of an X-ray therapy unit at the Royal Naval Auxiliary Hospital Shorncliffe I was able to put into [illegible] the knowledge gained. With increasing experience this technique [illegible] and the results in the treatment of 42 cases have been encouraging. A few of these cases were primary infections but several had a previous trouble in childhood and in some recurrence had [illegible] of the removal of the glands. All cases have been proved [illegible] by histological methods or were typical clinical examples of the disease [illegible] which were referred for treatment on clinical grounds only [illegible] progress with disappearance of the glands instead of calcifi[illegible] a biopsy was performed which proved the correctness of the [illegible] of Hodgkin's disease. This case was referred for deep X-ray therapy and made good progress prior to invalding from the Service.

The object of this article is to summarize the types of cases and the methods employed in their treatment.

Ætiology

[illegible] primary focus of infection is the tonsil [illegible] the teeth These primary foci must be [illegible]

Pathology

Generally speaking three stages may occur in the course of [illegible] glands and the cases in this article are classified in these stages which can be recognized clinically as well as pathologically

Stage 1 —The glands are firm and discrete

Stage 2 —Periadenitis supervenes and the glands become matted together

Stage 3 —Caseation and softening leading to cold abscess formation Secondary infection may occur giving rise to sinuses which will not heal

Summary of Cases Treated

Cases in this [illegible]	Male	Female	Age limits	Stage 1	Stage 2	Stage 3	Range of total dosage	Average total dosage	Range of time under treatment	Average time under treatment
32	25	7	16–29	12	9	11	400 r–1 500 r	900 r	5 3½ weeks	17 weeks

Treatment

General —This should follow the lines laid down for all other sinus conditions and is decided by the surgeon or physician in charge of the case namely fresh air sunlight extra milk &c It is important to remember when ultra violet light therapy is being used that the areas under treatment by X rays should be protected so as to lessen the chances of a local skin reaction

Local —The technique employed is that of small dosage frequently repeated rather than the massive dosage recommended by some writers The reason for adopting this technique is that there is less risk of the glands breaking down as they may well do with larger doses In the later stages of the treatment I consider that the periodicity may be diminished or the dose increased with safety and this modification is being carried out in cases now under treatment In general dosage and periodicity may be governed by the facts obtaining in any superficial condition as stated by the author in an article published in April 1941 in this Journal i e the more acute the condition the smaller the dosage or the longer the interval between treatments When an abscess is present particularly with the pus under tension aspiration must be performed before each administration of X rays as these conditions will induce the formation of secondary radiations which may cause damage to the tissues Aspiration in these cases must be carried out by remote puncture to minimize the risk of producing a sinus The details of the technique used in this hospital are as follows

Unit	Victor KX 10 Model
kv	140
Ma	5
Filtration	0 25 mm Cu + 1 0 mm Al
Dosage	50r at four or five day intervals up to a total of 500r followed by a rest for one month and a further course of 500r or less A third similar course may be necessary but in any case the total dosage should not be more than 1 500r over a period of 6–8 months

If there is any evidence of skin reaction e g redness burning itching &c following treatment dosage must be reduced or the periodicity increased Pigmentation of the skin may occur particularly in brunettes and this if permanent is not viewed kindly by female patients It may be prevented by reducing the dosage or increasing the intervals between treatments

RESULTS

There is no doubt in my mind that X ray treatment in this condition or indeed in tuberculous adenitis in any part of the body is the most effective and permanent The results of treatment can be assessed by palpation of the affected glands which at first become discrete if the case is one of stage two or three and finally become smaller and calcified This calcification when well established appears to be permanent and no recurrence can be expected in any area which has been thoroughly irradiated though there may be slight residual glandular enlargement in long standing cases

When one considers the mutilation and shock inseparable from massive resection of large groups of neck glands the results of X ray therapy become even more encouraging and this type of treatment very disembarrassing from the patient s point of view

SUMMARY

The results of X ray treatment in 92 cases of tuberculous cervical adenitis have been discussed and the technique of treatment described with reference to the pathology of the condition The value of X ray therapy as opposed to surgical excision has been stressed

My thanks are due to Surgeon Rear Admiral J A Maxwell *C I O C B E* K H S for his encouragement and for his permission to publish this article

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THE STORY OF THE ST JOHN AMBULANCE BRIGADE AND THE BRITISH RED CROSS SOCIETY[1]

BY

The Director, V A D Department

ON the 15th July 1099 the first crusaders entered the city of Jerusalem after a siege of forty days Here the wounded were received and cared for in the Hospice of St John the Almoner which was founded in 600 and was devoted to caring for the pilgrims who journeyed to the Holy City

At the time of the first crusade the warden of the Hospice was Gerard de Martiques a Provençal who is known as The Blessed Gerard Gerard the head of the Brothers of the Hospital of St John of Jerusalem founded a religious order under Benedictine rule whose special function was to care for all those

[1] A lecture given at the Royal Naval Hospital Haslar on 9th February 1948

who made pilgrimage to Jerusalem In the twelfth century the Order became militarized and was known as the Knights Hospitallers and took for their patron saint St John the Baptist The Order founded hospitals built and fortified castles and strong points on the ways used by those who made pilgrimage to the Holy City and whose journeying was fraught with danger by land and sea

Raymond de Puy who succeeded the Blessed Gerard was the first to hold the title of Grand Master In 1113 with the sanction of Pope Pascal II he formulated rules for the governance of the Order The Knights of the Hospital of St John of Jerusalem formed one of the oldest orders of chivalry and they vowed to adorn their knighthood with true charity the mother and solid foundation of all virtue

The Knights wore a black robe with the white eight pointed star on the left breast and the banner of the Order was a white cross on a red ground which was later adopted by Switzerland as the national flag Besides living like the ironided they were militant monks and over their armour they wore a red tunic with a white cross A Sisterhood of the Order was also established who wore a red under dress and a black robe with the emblem of the white eight pointed star At a later date they assumed the black habit as a sign of mourning for the loss of the Island of Rhodes

In 1187 the Christians were driven from Jerusalem and for over a hundred years the headquarters of the Order were in Acre taken by Richard Cœur de Lion after a siege of twenty three months Here in 1291 the Saracen Army under Sultan Khalil overpowered the garrison and after severe fighting only seven Knight Hospitallers remained alive The survivors reformed the Order in Cyprus and by 1310 they were once more strong enough to overcome the pirate stronghold in the Island of Rhodes From this base the Order developed into a sea power patrolling the Eastern Mediterranean and maintaining the sea routes to the Holy Land Every Knight who was appointed to a Commandery must have served at least three caravans on board one of their galleys

The Order was granted land at Clerkenwell in the twelfth century on which the Priory of St John was built and was consecrated in 1184 by Heraclius This Priory was destroyed by order of Henry VIII and only the gatehouse remained this having been rebuilt in the reign of Henry VII by Grand Prior Doewra who had been Captain of the Galleys and accompanied King Henry VIII to the Field of the Cloth of Gold It was he who enlarged and rebuilt the Gatehouse which was finished in 1504 and survived the bombing in the Second World War when the church of the Order of St John was destroyed

As the Knights could not approve King Henry VIII's dispute with the Pope the Order in England was dissolved by Act of Parliament which took effect in May 1540 At this date the Headquarters of the Order of St John was established in Malta which had been bestowed upon them by the Emperor Charles V here they resisted siege and remained until Napoleon Bonaparte seized the Island in 1798 The Headquarters of the Order

[illegible]ed to Rome and, in 1879 Pope Leo XIII restored the office of the Grand Mastership The Order was re-established in this country in 1832 and its headquarters are once more at Clerkenwell

In 1877 the St John Ambulance Association was founded by the Order with the primary object of instructing men and women in first aid and home nursing and in 1887 when a charter was granted by Queen Victoria divisions of the St John Ambulance Brigade were formed Since then nearly 4 000 000 certificates have been issued and the training manuals have been translated into 33 different languages or dialects The Brigade's activities include hospital and street duties ambulance work and first aid instruction is given to the Metropolitan Police Force by the medical instructors of the St John Ambulance Association

In every coalmine where the number employed in any one shift totals one hundred a first aid room must be provided adequately equipped and in the charge of a competent person Besides this precaution the regulations specify that a proportionate number of underground workers shall hold the certificates granted by the St John Ambulance Association The Marine Department of the Board of Trade recognize these certificates which are also [illegible] as proof of efficiency required for Master or Mate in the Merchant Navy

The Cadet Section of the Brigade is twenty one years old and Her Royal Highness Princess Margaret has honoured the movement by becoming their Commandant in Chief The Brigade has strong overseas branches and V A D members of the St John Ambulance Brigade have served with H M Forces in every theatre of war Most fittingly during the recent war throughout the [illegible] the island of Malta locally recruited members of the St John Ambulance Brigade served in the military hospital there

We have seen how the St John Ambulance Brigade grew out of the [illegible] of the past when the merciful work of protecting and caring for the [illegible] carried on by the religious orders Now we will trace the beginnings of the British Red Cross Society

The [illegible] of the British Red Cross shows the humanitarian impulse [illegible] in the burning zeal of one great Englishwoman—Florence Nightingale

[illegible] her face from the sheltered life of her home prepared herself [illegible] the sick and needy

In 1851 Mr and Mrs Nightingale were living in Italy and on the 18th of May [illegible] Florence their daughter was born Not until she was 30 was Florence Nightingale able to devote her whole energies to nursing She studied at Kaiserswerth where Pastor Fliedner had established a Mother house for the [illegible] of the Evangelical Church In this little town where in the 9th century St Swithburt one of 12 missionary monks sent from Northumbria was consecrated as Bishop and founded the monastery where he taught and died Florence Nightingale found peace and fulfilment

On completing her training Florence Nightingale nursed in this country until in 1854 she embarked for the Crimea with her band of 38 nurses The story of her labours and her achievements are well known and it was Florence Nightingale who was saluted by Henri Dunant as the true pioneer of the Red

[illegible] But it is to Henri [illegible] during pursuit [illegible] humanity that the Red Cross Society [illegible] origin

The Battle of Solferino [illegible] by Austria [illegible] on a hot July day in 1859 and [illegible] found a Swiss [illegible] the unwilling spectator of [illegible] The [illegible] its for the care of the wounded but [illegible] and supplies [illegible] and the confusion and suffering appalled the young man and inspired him to send for what supplies he could get He collected a band of helpers of various nationalities and for three days and nights they laboured among the wounded This experience changed the whole course of his life

Three years later in 1862 Dunant published his book—*A Memory of Solferino*—in which he set forth his experiences and his plan for the alleviation of such suffering as he had witnessed He demanded the peacetime preparation of medical and auxiliary services for use in war privilege for medical personnel and an international emblem to be recognized as sacred to the service of humanity Within a year of the publication of his book a permanent international council was formed The members of this Council were General Dufour (a Napoleonic veteran) Gustave Moynier (a young lawyer) and two doctors—Dr Maunoir and Dr Appia—who had helped in the relief work at Solferino

At the first Geneva Conference which took place in 1863 and to which 16 governments sent representatives the emblem of a red cross on a white ground was recognized as the international badge of those who labour for the sick and wounded and are therefore neutral This was a compliment to the Swiss nation—it is their flag in reverse It is interesting to note that the flag adopted by the Federation of Swiss Cantons had been taken from the banner of the Knights which was a red flag with a white cross

In 989 the Peace of God was declared by the Council of Charroux This protected the persons of priests monks and nuns pilgrims and peasants during war and this declaration made by the Church whose especial province was the care of the needy was once more the basis for the protection of humanity in succouring the wounded

In 1869 22 nations had signed the Geneva Convention To-day over 60 nations belong to the International League of Red Cross Societies During the recent war the President of the International Red Cross wrote So long as it still carries on its arduous labour of love a remnant of mutual comprehension survives and may be the point of departure for spiritual reconstruction when the war is over for the Red Cross is a cross too—the symbol of mankind's misery and his salvation

The Geneva Convention was a code of rules made for the protection of all who serve humanity in war and one of its aims was to enlist volunteers who were ready to prepare themselves in peacetime to act as auxiliaries in war Not however until 1905 was the British Red Cross Society established and in 1908 a charter was granted by King Edward VII when the enrolment of

voluntary-aid detachments was entrusted to county branches. By September 1914 1,900 voluntary aid detachments were registered throughout the United Kingdom and in co-operation with the divisions of the St. John Ambulance Brigade provided the V.A.D. members who served at home and overseas from 1914 to 1918.

In 1923 a scheme whereby members of the St. John Ambulance Brigade and the British Red Cross Society volunteered to prepare themselves during peace to serve in emergency was inaugurated. V.A.D. detachments were formed and registered at the War Office. Specially chosen members who volunteered to serve as and where required in emergency undertook the Mobile obligation and the Mobile badge with the Imperial Crown was granted as their emblem. This obligation entailed a week's duty in a Service Hospital every three years, as well as detachment attendances, and members who qualified in this way were mobilized on the outbreak of war.

Members who served near to their homes undertook the Immobile obligation and found work in local hospitals. In 1939 V.A.D. members were mobilized and over 1,000 have served with H.M. Forces at home and in every theatre of war from Iceland to Singapore, and some are serving still.

The primary function of the Red Cross is the supply of auxiliary help in war, both material and personnel, but in 1919 when the Covenant of the League of Nations was formed, article 25 dealt with the establishment of national Red Cross organizations with a supplementary charter of obligations. The supplementary charter lays down for members of the Red Cross the promotion of health, the prevention of disease and the mitigation of suffering throughout the world. The Red Cross of to-day has modelled its work on this blue print.

I do not presume to include all their activities, but I would first pay tribute to the main wartime functions, which were shared with the St. John Ambulance Brigade under the co-ordination of the Joint War Organization. Under the Geneva Convention the Red Cross Society was empowered to send medical supplies and food to prisoners of war. The wonderful organization of the packing depots for prisoners of war parcels was a revelation of what could be accomplished by voluntary service. The advice of experts on the best types of food, on the best ways of packing food, and on every possible variation of food was sought, but the vast army of voluntary helpers were those who found time to give their services in the middle of a busy household life, often driving many miles to do so.

With its main base at the New Bodleian in Oxford, the Education Section provided the means of study and organized authorized examinations for prisoners of war, which prepared them to face a post-war world. As in the 1914–18 war, the St. John Ambulance Brigade and the Red Cross Society organized a department to collect and despatch news to the relations of wounded and missing. Besides providing auxiliary nursing services, and maintaining the V.A.D. services, they established, equipped and staffed auxiliary hospital and convalescent homes, clinics for infant welfare, ortho-

[illegible] welfare [illegible] found who [illegible] both in hospital [illegible] and in bringing the [illegible] wounded and sick [illegible] in four different ways supplementing the service of healing

The Foreign Secretary Mr Ernest Bevin said "No other institution in the world could do for our wounded and soldiers in prisoner of war camps what the Red Cross did It does not belong to any State It is recognized by all governments as an institution of mercy to those who are wounded and fallen in war

And now in peace as in war the Red Cross has devised means for fulfilling the pledge to humanity As well as in nursing V A D members for service they provide many whole and part time auxiliary nurses in hospitals up and down the countryside they maintain and staff hospitals first aid posts on air fields and at lifeboat stations highway first aid posts libraries picture libraries in hospitals mobile physiotherapy units and medical loan depots The Red Cross Society has equipped and staffed day nurseries old people's homes and clubs One of their homely services is the provision of tea for those who are visiting their relations in hospital and also for out patient departments The Red Cross organized relief measures for the victims of last year's floods and are now distributing the invalid foods so generously provided by the Commonwealth of Nations

One county maintains and staffs a hospital devoted to the care of crippled children another has a convalescent home for children and this county also staffs a cottage hospital run as a convalescent home The Red Cross Society had played a great part in the blood transfusion service organized on a county basis It has been my privilege to visit some of the counties and to hear of and see some of their many activities

They are all strung on one thread the pledge to suffering humanity

The work of the Red Cross is based on certain principles

(1) It is voluntary Members must be paid for their work full time or part time but all Red Cross work is offered

(2) The work of the Red Cross is neutral it is confined to no creed no dogma no politics and no race

(3) The Red Cross is universal its badge passes through all barriers in time of war and remains the one international symbol Pain and grief know no frontiers nor does the work of mercy

The aim of the Red Cross is to supplement the official services to serve in all emergency and finally I believe that its greatest function is to provide a service in which all can join It is not only a society but a way of life

V A D members of the St John Ambulance Brigade and Red Cross Society this is the history of your origin this is the past—the future belongs to you

ALISON YOUNG

Clinical Notes and Cases

SURGICAL REMOVAL OF A DENTIGEROUS CYST AND ITS TWO CONTAINED TEETH

Report of a Case

BY

Surgeon Commander (D) W. E. L. BRIGHAM, R.N.,
Specialist in Dental Surgery at R.N. Hospital Haslar

AND

Surgeon Lieutenant DONALD BROWN, R.N.V.R.

Case History.—The patient, aged 15½, was admitted from [illegible] training ship [illegible] for the removal of an unerupted tooth.

Symptoms.—Nil.

General Examination.—Normal [illegible] with the exception of the lateral [illegible] absence of permanent left lateral incisor in the [illegible] mandible.

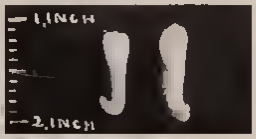
Special Examination.—The soft tissues of the [illegible] mandible [illegible] lateral and [illegible] no abscess [illegible] cyst [illegible] from the [illegible] palpable to the last premolar [illegible] the [illegible] mandible. An impression of the [illegible] of the mandible showed a [illegible] extending laterally and [illegible] had the apex of its root in the lower [illegible] the mandible and its [illegible] the mandibular [illegible] the [illegible] dose of [illegible] 49,000 [illegible] was given [illegible] before [illegible] the [illegible] class having been [illegible] with ⅛ grain [illegible] palpation [illegible] ⅛ grain [illegible] dose of ⅛ grain [illegible] was given [illegible] the [illegible] *Operation.*—Bilateral mandibular [illegible] under local anæsthesia in the [illegible] tissues. The mandible [illegible]

[illegible] approximately [illegible] quarter [illegible] gingiva and extending [illegible] the [illegible] the first premolar on [illegible] the left mandibular [illegible] the mandible and the flap retracted [illegible] of the mandible [illegible] using [illegible] along [illegible] the outer cortex of the cyst.

[illegible] the cyst [illegible] with [illegible] and the cyst [illegible] was [illegible] the left [illegible] was also [illegible]

The [illegible] filled with albolene [illegible] containing 200,000 [illegible] of the parenchymal flap [illegible] and six stitches of fine [illegible] needles were used.

Post-operative.—[illegible] penicillin [illegible] operation. [illegible] with [illegible] of the lower lip and in the left [illegible] for the [illegible] but there was no [illegible] indicating that there was no damage to the [illegible] tissue was complete eight days after operation. The patient was [illegible] days after operation.



SUMMARY

In this case the following points are of interest

(1) That two fully formed teeth (the lower left permanent lateral and the lower left permanent canine the latter being two rooted) were contained in a dentigerous cyst

(2) That with so much destruction of bone the possibility of a spontaneous fracture occurring during operation was fully realized and precautions against this had been taken

(3) Since the advent of penicillin it is now justifiable to close a cyst and expect healing of the soft tissues by primary intention

(4) In this case there was no loss of sensation in the lip following surgical interference and after operation the deciduous lateral and canine teeth proved vital to tests

This case is in many ways similar to that reported by Taylor and Huebsch (1948)

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THREE CASES OF STATUS LYMPHATICUS

BY

Surgeon Commander W P E McINTYRE, R N

ENLARGEMENT and persistence of the thymus gland associated with hyperplasia of the lymphoid tissues has long been recognized as a cause of unexpected and sudden deaths Frequently there is a history of trivial injury or death following chloroform anæsthesia and so far no explanation of its occurrence has been produced Occasionally pressure effects on the heart or great vessels and adjacent nerves have been alleged to be responsible but this appears unlikely as quite often the thymus gland itself is only slightly enlarged A more likely explanation would appear to be a lack of some internal secretion which renders these people very susceptible to shock as the immediate cause of death is always acute cardiac failure W N Kemp considers that many cases are due to certain adrenal insufficiency possibly secondary to hypofunction of the thyroid gland If this theory is correct it is again difficult to understand how some of these people reach adult life before sudden death occurs

The following three cases are of interest because they must have been medically examined by Medical Boards and all were passed fit for general service

Case Histories

Case I An officer aged 22

The patient was found dead in his bunk in the early morning, and had a [illegible] He was a well developed man with no previous history of any illness and always appeared thoroughly fit The night before his death he [illegible] that the wardroom was stuffy and asked to have a scuttle opened he also [illegible] had been seeing spots before his eyes and found it difficult to breathe but he [illegible] and did not report sick Post mortem revealed a thymus gland [illegible] extending down into the arch The aorta was [illegible] a [illegible] enlargement of the superficial lymph glands and enlarged glands [illegible] the outer surface of the heart there were a few petechial [illegible] the heart was normal in every other way The lungs showed signs of [illegible] and all other organs appeared normal [illegible] Death [illegible] of Status Lymphaticus

Case II Age 21

[illegible] playing [illegible] playing, [illegible] and [illegible] fell down and was found [illegible] was examined by a [illegible] who [illegible] for minutes He was [illegible] physical [illegible] persistent thymus gland [illegible] glands, 17 [illegible] and [illegible] all other organs appeared normal The cause of [illegible] was taken in a case of Status Lymphaticus

Case III

[illegible] passing of bill [illegible] assisted walking, for two [illegible] collapsed and died after half an [illegible] playing Shortness of breath [illegible] thymus gland [illegible] post mortem history of

[illegible]

My thanks are due to Surgeon Rear Admiral [illegible] for permission to publish these cases.

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[illegible] appendix [illegible] the [illegible] urgent nature.

[illegible]

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[illegible]

have [illegible] printings [illegible] of the [illegible] attained [illegible]

In the [illegible] author has revised [illegible] have [illegible] clear diagrams [illegible] which [illegible] The book [illegible] preparations under [illegible]

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[illegible] physician [illegible] has been [illegible] style. The author [illegible] has succeeded [illegible] difficulties of [illegible] relative [illegible] The excellence of the material this volume [illegible] intoxicating [illegible] advantages of having to produce four volumes [illegible] This paper [illegible] becomes [illegible] from the binding.

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Victor Robinson, [illegible] Medical History of Temple University, 1929–46; editor and [illegible] Medical Life (1920–38), died in January 1947. This volume of essays [illegible] told to him on his sixtieth birthday, became a memorial to mark the anniversary of his death. His thirty-eight chapters are contributed by his former students [illegible] additions. These are in addition to [illegible] Victor Robinson himself. The result is that the book presents a practical [illegible] and [illegible] contributions by the intrinsic value of the [illegible] Victor Robinson himself [illegible] book is a suitable monument as a [illegible]

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Reminiscences [illegible] Department of the Treasury, Bureau of Internal Revenue, United States [illegible] Internal Revenue [illegible] Pp. [illegible] $[illegible]

[illegible] Antiquity [illegible] illustrates the [illegible] Medical Substitute in Ancient [illegible] Pp. 80. Illustrated by [illegible] $[illegible]

[illegible] 81 96 are [illegible] Of [illegible] Medical Ethics [illegible] in [illegible] A mistake in the [illegible] XIV century In the application [illegible] XIV [illegible] beneath [illegible] of the [illegible] of pellum, [illegible] bound [illegible] in the [illegible] in passing [illegible] History of [illegible] Medical Examination Papers [illegible] Medicine in the Seventeenth [illegible] collection of essays of this kind [illegible] suggestion cut [illegible] fact that the whole production has [illegible] adequately [illegible] and that given more time and [illegible] much better

[illegible] MS F.R.C.S. First Edition 1948 Pp 299 with 15 [illegible] illustrations London Pitman Medical Publishing Co Ltd [illegible]

[illegible] practical study of anomalies It gives a simple [illegible] of the human body The illustrations and [illegible] photographs [illegible] a clear visual grasp of the subject

We acknowledge with thanks receipt of the following publications —

Annals of Tropical Medicine and Parasitology *Archives Belges de Medecine* *Australian Journal of Experimental Biology and Medical Science* *The British Journal of Surgery* *British Medical Journal* The Broad Way *Bulletin de l'Union Internationale des Services de Santé des Armées* *Bulletin of the World Health Organisation* *Clinical Problems* *Chronicle of the World Health Organisation* *Chinese Journal* *Current List of Medical Literature* *Guy's Hospital Gazette* *Hospital Corps Quarterly* *Indian Medical Gazette* *Journal of the Bombay Grant Medical College* *Journal of the Medical Association of Eire* *Journal of the Indian Medical Association* *Journal of the Royal Army Medical Corps* *Journal of the Royal Naval Sick Berth Service* *Journal of the Royal Sanitary Institute* *Medical Journal of Australia* *Medical Press and Circular* *Medical Digest* *Medical Journal* The Military Surgeon *Proceedings of the Staff Meetings of the Metropolitan Hospital* *Royal Aeronautical Medical Review* *Royal Melbourne Hospital Clinical Reports* *St George's Hospital Gazette* *St Thomas's Hospital Gazette* *Tropical Diseases Bulletin* *Ulster Medical Journal* *Transactions of Dublin Medical Society* *Medical Gazette* *Medical Bulletin* *Medical Journal*

[illegible] *Medical Diseases* Messrs Longman have published [illegible] which [illegible] E & S Livingstone Edinburgh

Black's Medical Dictionary Messrs Black will have published [illegible] This can be [illegible] at 48 Broad Street London

News of the Service

ASSOCIATION FOOTBALL UNITED-SERVICES CHALLENGE CUP

PLAYING at Pitt Street Portsmouth on 3rd March 1948 versus the Royal Naval Signal School Fort Southwick the Haslar Sick Berth Staff won the Challenge Cup with 3–1

ADMIRALTY FLEET ORDERS

2.—Aircraft Accident or Forced Landing—Medical Officer's Report—Amendment to Regulations for Naval Aviation

(A.V.A. 685/47.—2 Jan. 1948.)

The following amendment is to be made in A.F.O. 4088/47, article 178.—

Paragraph 1.—*Delete* and *substitute*.—

A Medical report on form M.171 is to be rendered in all cases of flying accidents whether injury is sustained or not. Useful information may be revealed from the factors which have prevented injury, to ascertain the facts about such accidents is as important as establishing the cause of death in fatal accidents.

(*A.F.Os. 3058/47 and 3914/47.*)

9.—Safety Equipment and Survival Training School—Terms of Reference

(C.W. 24403/47.—2 Jan. 1948.)

The R.N. Safety Equipment and Survival Training School is located at R.N. Air Station Gosport and is under the administration of Flag Officer Air (Home).

2. The functions of the school include:

(i) The training of Safety Equipment and Survival Officers and Safety Equipment Ratings in the supervision of maintenance, installation, fitting and instruction in all safety equipment, and the investigation of operating failures and defects in such equipment, putting forward proposals as necessary for improvements in modification.

The instruction of Safety Equipment and Survival Officers in conjunction with the Air Medical School in aviation survival with particular regard to geographical areas and conditions.

(ii) The instruction of aircrew in conjunction with the Air Medical School in aviation survival.

(iii) The general supervision of service personnel when required in all aspects of safety equipment tests.

3. The School is responsible for the upkeep of equipment and tools of safety equipment and of instructional equipment, and the investigation of safety procedures and drills and preparation of reports on the results of tests in the use of safety equipment and of aircraft safety equipment in general use.

4. Safety equipment includes—

Flying clothing, which includes oxygen mask, oxygen apparatus (excluding mask fittings), flying helmets and pilots' flying suits.

Shoulder harness.

Parachutes and parachute harnesses.

Aircraft dinghies, type inflatable dinghies.

Supplementary oxygen apparatus.

Aircraft emergency survival packs.

Smoke and signal apparatus.

Life saving jackets—Mae Wests.

Aircraft equipment fabrics.

Oxygen bottles.

Dinghy repairing tools.

5. The School is responsible for research and development in safety equipment and equipment for all aircraft crews in aid and rescue, and for giving instruction in the general operation of research and development in safety equipment and survival tests.

6. The Safety Equipment and Survival Training School is a technical school under the Admiralty Medical School, but all matters which affect the general administration of the School are referred to the Director of Naval Ordnance Equipment.

7. The Commanding Officer, R.N. Air Station Gosport, is responsible for the maintenance of the School in accordance with the Director of Naval Ordnance Equipment, the Director of Naval Aviation, and the Medical

[illegible] and the Ministry of Supply [illegible] critical [illegible] but all possible [illegible] authority

(*A F O 3622/44 and A F O 5614/44 cancelled*)

33.—Effects of Underwater Explosions on Personnel—REPORTS
(M D G 37590/47.—2 Jan 1948)

The Naval Personnel Research Committee wish to collect information on the effects of underwater explosions such as those occurring in the future, especially in the Mediterranean, various patterns of diving dress.

The recent hostilities have many survivors from sinkings who have subjected to underwater explosions while they were in the water and other personnel who have been [illegible] and engaged in demolition or salvage. Information from [illegible] injured or temporarily incapacitated when diving, [illegible] [illegible] is [illegible]

[illegible] experienced underwater explosions in some such [illegible] [illegible] injured, be in a position to give information which will be [illegible] the effects of underwater explosions and in the development of means to [illegible] the effects of underwater explosions on personnel. Pieces of information which could not alone seem to be significant may after the analysis of a large number of reports be important.

4. Officers and ratings who have personal experience of this hazard are to report to the Senior Medical Officer of the ship or establishment in which they are serving and [illegible] first the circumstances may be recorded.

(*C I F O 248*)

34.—Periodical Medical Examination of Officers R.N. and R.M.—Officers with Colour Perception below Standard
(M D G 34095/47.—1 Jan 1948)

In cases when there is no former record of examination and an Executive Officer is found to have colour perception below Standard, a report is to be made to his Commanding Officer; the report should then be forwarded by the Commanding Officer, remarks through the usual Service channels to Admiralty. No action is to be taken by officers with a new [illegible] involving a serving officer until the Admiralty decision has been communicated.

145.—Jaundice—REPORT
(M D G 38433/47.—9 Jan 1948)

Reports rendered in respect of personnel suffering from jaundice are no longer required.

(*A F O 2833/44 is cancelled*)

147.—Medical and Dental Officers—Membership of the Royal Society of Medicine
(M D G 38402/47.—9 Jan 1948)

The Royal Society of Medicine have recently made a new bye-law whereby the Medical and Dental Officers, as long as they are in the Forces or on the Retired List or are stationed to enjoy full privileges at the overseas rate of subscription, which is 4 guineas per annum.

The privileges of the Society are well known and include the reception of the proceedings of the Society, which includes all sections, and the use of the Library, which contains 150,000 volumes and from which photostatic copies of articles may be obtained.

It is hoped in the future to install micro-film projectors in large Service hospitals throughout the world, which would provide Fellows with microfilm and microprints which could be read on the spot.

In addition it is proposed to review the near future the Council Services Section [illegible] application for election may be obtained from the Secretary, 1 Wimpole Street, London, W.1.

156.—R.N.V.R.—Foibeema System of Medical Classification
(N.R. 3on/4/46.—9 Jan. 1948.)

[illegible] rule personnel of the R.N.V.R. will have been classified [illegible] before proceeding for training.

[illegible] may not be possible to arrange for officers and men [illegible] headquarters for medical examination before proceeding for training [illegible] distance away from their headquarters.

[illegible] particularly to Lists II officers of the R.N.V.R. and [illegible] R.N.V.(W)R.

[illegible] R.N.V.R. is noted by Admiral Commanding, Reserves as the [illegible] Officers of ships and establishments that [illegible] training.

[illegible] the R.N.V.R. 16 [illegible] classification.

[illegible] numbers with the [illegible] certificates and notifications are [illegible] R.N.C.C. Badges.

The R.N.V.R. [illegible] in the case of the R.N.V.(W)R. [illegible] R.N.V.R. [illegible] R.N.V.R. [illegible] examination [illegible] R.N.V.R. Divisions.

180.—Form M.18.—Medical Record Card.—Introduction
(M.D.G. 26830/47.—9 Jan. 1948.)

A printed card has been established as Form M.18 to standardise the recording of [illegible] relating to persons on the sick list. It provides for notation of identification [illegible] medical record of M.H.S. and hard certificates, diagnosis and treatment.

[illegible] will be available on demand from the [illegible] Depot, Park Royal, London, N.W.10.

[illegible] should be restricted to minimum requirements and all entries [illegible] special forms ordered for this purpose are to be considered cancelled.

*222.—Sick Berth Attendants—Service Qualification for Advancement
(N.2.N. 128/48.—16 Jan. 1948.)

[illegible] 1st January, 1948, the service qualification for advancement of Sick Berth [illegible] to Leading Sick Berth Attendants is to be two years instead of three years. [illegible] Appendix I, No. 354 (B) will be amended in due course.

(B.R. 1066.)

185.—Convalescent Home Facilities for Ratings, W.R.N.S. and Members of V.A.D.
(M.D.G. 20172/47.—16 Jan. 1948.)

[illegible] W.R.N.S. and Members of Voluntary Aid Detachments who require a period [illegible] after discharge from hospital may be considered for discharge to the [illegible] Auxiliary Hospital, Ashton Wold, Oundle, Northamptonshire.

[illegible] hospital is in delightful surroundings and has an outdoor swimming pool.

[illegible] Officers in Charge of Naval Medical Establishments who have a case [illegible] W.R.N.S. or members of V.A.Ds. requiring rehabilitation after a period [illegible] apply to the Medical Advisers Department, British Red Cross Society, [illegible] Mansion, for a form of application and a medical certificate.

[illegible] types of cases are not admitted:

[illegible] of all kind, pulmonary tuberculosis, mental and epileptic [illegible] infectious [illegible] requiring treatment, incontinence, advanced pregnancy.

[illegible] period of stay is four weeks.

[illegible] date [illegible] this will be [illegible] Naval Lands and all cases [illegible] this Red Cross Yacht [illegible] Medical Director [illegible] of the Navy 26 Feb 1948.

(A I O 49/48 is cancelled)

232.—R.N. Hospitals and Sick Quarters

(M D G 54/247.—16 Jan 1948.)

[illegible] upon the issue of A I O 4259/47 the following Orders are *cancelled*: A I O 42/1837/42, 3934/42, 5600/42, 5033/43, 5808/43, 5364/44, 6507/44, 1791/45, 1345/45, 3846/46, 5178/46, 5179/46 and 918/47.

(A I O 4259/47.)

238.—Compulsory Treatment of Venereal Disease—Defence Regulation 33B

(M D G 436/48.—16 Jan 1948.)

Under the Emergency Laws (Transitional Provisions) Act 1946 and the Emergency Laws (Miscellaneous Provisions) Act 1947 Defence Regulation 33B expired on 31st December 1947. The arrangements set out in A F O 3348/47 no longer remain in force.

(A I O 3348/47 is cancelled.)

316.—Aircraft Accidents or Forced Landings—Aircrews—Medical History

(A/A A 685/47.—23 Jan 1948.)

Form M 171 includes a requirement for reporting previous accidents in which it has been involved.

2. It is feasible that in the future it may be inadequately to fulfil this requirement the flying log book is to be scrutinized by him as soon as possible after an aircraft accident or forced landing. Commanding Officers are to ensure that the flying log book will be available to the medical officer for this purpose.

3. Medical examination of all aircrew personnel involved will in future be carried out immediately after an accident or forced landing even though they are apparently uninjured and the relevant medical documents will be completed. A F O 2615/47, Section III B, is to be *amended* accordingly.

(A I O 2615/47.)

326.—Hurt Certificates—Procedure to operate during Release and Dispersal Period

(P M D N A 7855/47.—23 Jan 1948.)

The provisions of B R and A I Article 1992 are to be held in abeyance until further orders and hurt certificates are only to be assessed when the ruling appears for medical examination for release at his depot, the hurt certificate then being disposed of in accordance with B R 1281 (1) (17) paragraph 108A.

2. When application is made for Long Service Pension Form S 489 (form of application for pension) should be noted in the section regarding hurt certificates as follows:—

Hurt certificate will be assessed in accordance with B R 1281 (1) (47) paragraph 116A on ratings release from H M Service.

(A R and A I Art 1992.)

340.—Travelling—Personnel Undergoing Long-term Treatment—Transfer of Free Warrants to Relatives

(P M 6911/47.—23 Jan 1948.)

Personnel undergoing long term treatment in hospitals and sanatoria in the United Kingdom who are consequently unable to proceed home on leave may have the concession of free travel warrants transferred to a relative not necessarily next of kin to enable the latter to visit them in hospital. Warrants thus transferred will count against the number of free leave travel warrants allotted annually.

2. This concession dates from 1st April 1947 and the number of warrants that may be transferred is limited to three a year. Free warrants issued to children under the age of 14 years will count as halves against the annual entitlement of the officer or

[illegible]

[illegible] Warrants [illegible]

[illegible]

[illegible] for [illegible] [illegible]

[illegible] the [illegible]

[illegible]

[illegible]

[illegible] establishments in which [illegible]

[illegible] 4425/43 6091/45 [illegible] 4

[illegible] T O 3619/47 is cancelled

496.—Fitting of Replacement X-Ray Tubes on Units Fitted with Milliampere Test Selectors

(M D G 2268/48—6 Feb 1948)

In view of the possibility of damage occurring to X-ray tubes consequent on improper installation and of efforts in charge of [illegible] establishments in the United Kingdom and in instructional units that when replacement X-ray tubes are required for units fitted with milliampere test selectors [illegible] [illegible] is essential that the [illegible] installation and adjust the settings [illegible] Both staff should be permitted to undertake the [illegible] and thus [illegible] the settings. [illegible] selector unit [illegible] is likely to [illegible] its [illegible] structure.

503.—Form M 177D—Annual Account of G U Specialists Medical Stores—Not to be Reprinted

(M D G Sta 10119/47—6 Feb 1948)

Form M 177D will not be reprinted at present. On exhaustion of stocks Form M 177E is to be used in lieu.

557.—Yellow Fever—Protective Inoculation

(M D G 4844/46—13 Feb 1948)

Subject to the provisions of R.R. and A.I. Article 1417 Clause 13 all personnel proceeding by whatever means to or passing through areas where yellow fever is endemic will be in possession of written evidence that they have been inoculated against yellow fever within the previous four years.

The African endemic yellow fever area comprises:—

From the mouth of the River Senegal along that river eastward to the 15th degree North parallel latitude thence eastward along that parallel to the eastern border of the Anglo Egyptian Sudan. Thence northward along the eastern boundary of Eritrea to the Red Sea Coast thence southward along the Red Sea coast. Africa to the southern boundary of the Protectorate of Kenya thence westward along that boundary and the southern boundary of Kenya to the point where the southern border of the Uganda Protectorate and thence along the eastern border of the Belgian Congo to the 10 degree South parallel latitude thence westward along that parallel to the west coast. Africa thence northward along the west coast of Africa to the north. The Republic of Liberia, the islands of the Gulf of Guinea. The port of Massawa. Eritrea and within 10 kilometres radius from the centre of the town of Asmara in Eritrea. The Bantu Protectorate and the British District in Western Protectorate of Nigeria. These are the islands in the African endemic area [illegible]

[illegible] All [illegible] the East Indies Station [illegible] for short [illegible] the United Kingdom and [illegible] Yellow Fever [illegible] United Kingdom

2 Immunisations [illegible] days after inoculation [illegible] should elapse before the [illegible] is used

In order to [illegible] regulations [illegible] that country [illegible] is examined

3 Inoculations against yellow fever should preferably [illegible] possible the interval between the two doses [illegible] vaccination against smallpox has been [illegible] first yellow fever [illegible] carried out until 3 weeks have elapsed

4 Inoculations against plague cholera typhoid [illegible] necessary be given at the same time as inoculations against yellow [illegible]

5 In cases where delay cannot be accepted the [illegible] should not be followed and inoculations against yellow fever [illegible] smallpox must be done at the same time

6 While there is no scientific reason against the [illegible] immediately before or immediately after yellow fever [illegible] it is certainly desirable that persons should not take [illegible] before and after inoculation

7 The attention of medical officers is hereby [illegible] the rapidity [illegible] becomes inert if not stored at a temperature of 4 C [illegible] should be carried out wherever possible at the hospital [illegible] vaccine is stored When this is not done the vaccine [illegible] from the storage depot on the day on which it is required

8 Deterioration even under optimum storage conditions [illegible] of manufacture the dosage on the label should be [illegible] 100 first ampoules consisting as a dose ampoules) After [illegible] should be discarded

9 Stocks of yellow fever vaccine are held at the following [illegible] units for which are obtainable by application to the Medical [illegible]

Royal Naval Barracks Portsmouth
Royal Naval Hospital Haslar
Royal Naval Hospital Chatham
Royal Naval Hospital Plymouth
Royal Naval Hospital Port Edgar Scotland [illegible]
H M Dockyard Gibraltar

10 Yellow fever inoculations can be [illegible] units mentioned in paragraph 9 and also at the following [illegible]

Wellcome Research Institution 183 193 [illegible]

Ministry of Health and Department of Health for Scotland

[All appointments for the Wellcome Institute [illegible] Ministry Medical Board Queen Anne's Mansions [illegible] Whitehall 9444 Ext 695)

Newcastle	Regional Blood Transfusion Centre 78 Jesmond Road Newcastle upon Tyne 2	[illegible]	[illegible]
Leeds	Regional Blood Transfusion Centre Meanwood Park Leeds	Leeds 52951	[illegible]
Oxford	Regional Blood Transfusion Centre Churchill Hospital Headington Oxford	Oxford 61316	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]
B[illegible]	Regional Blood Transfusion Centre Southmead Hospital	680[illegible]	[illegible] p.m.
[illegible]	Regional Blood Transfusion Centre 19 Newport Road Cardiff	Cardiff 4521	Mondays 2.30–3.30 p.m.
M[illegible]	Regional Blood Transfusion Centre Manchester Royal Infirmary Oxford Road Manchester	Ardwick 3832	Tuesdays 2.30–3.30 p.m.
Birmingham	Regional Blood Transfusion Centre 17 Highfield Road	Edgbaston 1182	Tuesdays 2–3 p.m.
Plymouth	Regional Blood Transfusion Sub Centre City General Hospital Plymouth	Plymouth 5021	Not yet fixed
S[illegible]	Pathological Department Royal South Hants and Southampton Hospital Tremlett Street Southampton	Southampton 76211	Tuesdays 2.30 p.m.
Cambridge	Regional Blood Transfusion Centre Brooklands Avenue Cambridge	Cambridge 2836	Mondays 2.30–3.30 p.m.
Truro	Pathological Department Royal Cornwall Infirmary Truro	Truro 3029	Tuesdays 10–11 a.m.
Scotland			
Edinburgh	Bacteriological Department Edinburgh Royal Infirmary Lauriston Place Edinburgh 1 (Dr W. R. Logan Bacteriologist in Charge)	Edinburgh 26031	Mondays and Wednesdays 2.30–3.30 p.m.
Glasgow	Public Health Clinic 20 Cochrane Street Glasgow C.1	Glasgow Central 9801 Ext. 302.	Fridays 2.30 p.m.
Aberdeen	City Hospital Laboratory City Hospital Urquhart Road Aberdeen	Aberdeen 2242 Ext. 11	Thursdays 1 p.m. or by prior arrangement
Northern Ireland			
Belfast	Ministry of Health for Northern Ireland Emergency Hospital Musgrave Park Balmoral Belfast		

[illegible] days notice preferably in writing should be given to these centres before [illegible] for inoculation.

II. Notations to be made in Pay Books (S.43A) as well as on Medical History Sheet (S.46).

II. Medical Officer giving the inoculation is to keep also a record of each certificate (as specimen below printed). This should be initialled by the officer giving, enclosed as evidence that he has received the certificate.

INTERNATIONAL CERTIFICATE OF INOCULATION AGAINST YELLOW FEVER

This is to certify that (Age Sex) whose signature appears below has this day been inoculated against yellow fever.

Origin and Batch No. of vaccine

Signature of inoculating officer

Official position Place Date

Signature of person inoculated

Home address

[illegible]

12 [illegible] which [illegible] Medical [illegible] Nav[illegible]

[illegible] 1417 [illegible] 13

(4 [illegible] 4002/47 and 4003/47 are [illegible])

631.—The Royal Naval Personnel Research Committee—Purpose and Organization

(C.F. [illegible] S.D. 99/47.—20 Feb 1948.)

The Royal Naval Personnel Research Committee of the Medical Research Council is a body consisting of civilian scientists and naval officers which was instituted in 1942 at the Admiralty's request. For the purpose of combating the considerable and varied problems of the Medical Research Council for the benefit of the Naval Service, and for guiding the Medical Research Council in the application of these researches.

2. The terms of reference of the Committee are:—

To advise the Medical Research Council on such investigations as the council may be asked to undertake on biological, medical and physiological problems affecting the health and fighting efficiency of naval personnel and to suggest investigations with a view to increasing or improving the health, fighting efficiency and environment of Naval personnel and to carry out such investigations as the council may [illegible].

3. The organization is: The R.N.P.R.C. consists of a Main Committee which is given [illegible] possible for all its activities and a number of Sub-Committees formed [illegible] carrying out investigations in more detail on particular subjects. The Chairman of the Main Committee is Sir Edward Mellanby, G.B.E., K.C.B., M.D., F.R.C.P., F.R.S., Secretary of the Medical Research Council.

4. There are at present six Sub-Committees dealing with the various topics [illegible] Consultants to the R.N.P.R.C. These are and their terms of reference are as follows:—

(a) *The Under-Water Escape Sub-Committee.*—To carry out research and investigation [illegible] physiological research in the [illegible] and decompression problems.

This sub-committee consists of technical principal officers [illegible] of [illegible] contained diving, submarine and underwater breathing apparatus, surface [illegible], decompression, pressure [illegible] and physiological [illegible] and [illegible] research [illegible].

(b) *The Clothing Effect Sub-Committee.*—To examine the physiological [illegible] of clothing systems in relation to [illegible] particular [illegible] of the [illegible] (e.g. [illegible]).

[illegible] methods of protecting personnel and [illegible] the [illegible] requirements in the treatment of casualties.

(c) *Operational Efficiency Sub-Committee.*—[illegible] investigation [illegible] the efficiency of Naval personnel in their [illegible].

This sub-committee has been [illegible] problems [illegible] Commander-in-Chief, Western Approaches, [illegible] information organization and the efficient training of personnel in their [illegible] and particularly [illegible] of [illegible] in [illegible].

(d) *Chemical Efficiency Sub-Committee.*—To study the [illegible] of [illegible] in H.M. Ships and the efficiency of Naval personnel.

This sub-committee has principally [illegible] the [illegible] the [illegible]

efficiency at high temperatures. It is hoped [illegible] tions on [illegible] of cold on the men [illegible].

The [illegible] have been formed by the [illegible] problems:—

(i) Ventilation in H.M. Ships [illegible] standards.

(ii) [illegible] Habitability [illegible] and [illegible].

(iii) [illegible] the effect [illegible] particularly [illegible].

(b) [illegible] *Sub-Committee.*—[illegible]

[illegible] in the [illegible] and [illegible] on the problems [illegible].

(c) [illegible] *Sub-Committee.*—[illegible] the conditions [illegible] Naval personnel [illegible] the physiological [illegible] experiments [illegible].

The [illegible].

5. [illegible] *Sub-Committee.*—[illegible] R.N.P.R.C. [illegible].

[illegible] probably [illegible] R.N.P.R.C. [illegible].

[illegible] forwarded to the [illegible] of the Admiralty [illegible] R.N.P.R.C.

(A.F.O. 209/45 is cancelled.)

650.—Protection against Typhoid and Paratyphoid Fevers

(M.D.G. 37540/47.—20 Feb. 1948.)

Recent research has shown that a higher degree of immunity is produced [illegible] interval between the first and second doses of certain vaccines is increased. [illegible] the interval between the initial dose and the second dose of T.A.B.C. vaccine [illegible] from 21 to 28 days.

3. On foreign stations where typhoid and paratyphoid fevers are prevalent [illegible] dose of the same amount as the initial dose may be given [illegible] advisable to all persons on [illegible] stations irrespective of the period [illegible] with the object of increasing their immunity.

4. Recent experimental work has also shown that the immunising properties of bacterial vaccines are best preserved at [illegible] below 39° F. (4° C.) and that [illegible] when kept for long periods at [illegible] temperatures. All bacterial vaccine suspensions should [illegible] be kept [illegible] but should not be actually frozen. (The [illegible] small-pox [illegible] should on the contrary be kept below 14° F. [illegible] and should not be allowed to rise above 32° F. (0° C.) until actually [illegible].)

5. T.A.B.C. vaccine is prepared at the R.N. Medical School and is available [illegible] medical depots. These depots will continue to [illegible] from the Medical School is limited. Demands should be [illegible] required. Future issues [illegible] from R.N.M.S. [illegible]

will [illegible] the label which will [illegible] the vaccine. [illegible] available.

[illegible] thimerosal [illegible] injections [illegible] degree [illegible]

[illegible] nasal [illegible]

[illegible]

1417 Class (b) [illegible] Medical Officer [illegible] Street [address] Medical [illegible] is given below —

Inoculation Return

Ship or establishment
Month ending
Type of vaccine

	Batch No. and Date	Nil	*	†	‡	Total
First inoculation— Local reactions						
General reactions						
Second inoculation— Local reactions						
General reactions						
Totals						
Special reactions and remarks						

Instructions for completing the return are as follows —

Local reactions

Nil — No signs

* — Area of inflammation and swelling not exceeding 5 sq. cms.

† — Area of inflammation and swelling, exceeding 5 sq. cms.

‡ — Large area of inflammation, swelling, and lymphadenitis

General reactions

Nil — No symptoms

* — Headache and malaise. Temperature normal

† — Headache and malaise. Temperature above normal but not exceeding 100° F.

Headache, malaise and nausea, etc. Temperature exceeding 100° F. Sick list

Batch number and date of vaccine are to be entered in the appropriate column. Then [illegible] particularly if the return shows an abnormal number of reactions.)

8. When [illegible] travel through [illegible] request [illegible] certificate as below

[illegible]

This [illegible]

(Age [illegible]

[illegible]

Hospital			Embarking Officer		
Date	[illegible]	[illegible]	Date	[illegible]	[illegible]

Signature [illegible]

Official stamp of Embarking Officer

This certificate [illegible]

(A.F.O. 1883/47, 1885/47 and 2421/47 [illegible])

662.—Naval Air Passenger and Ambulance Services in the United Kingdom

(A. 572/47.—20 Feb. 1948.)

Air Passenger Service.—Schedules of Naval air passenger services now in operation in the United Kingdom are promulgated by Flag Officer Air (Home).

2. *Air Ambulance Service.*—An aircraft of No. 782 Squadron is equipped for use as an air ambulance with accommodation for two stretcher cases.

3. Applications for this air ambulance should be made by signal to the Commanding Officer, R.N. Air Station, Donibristle and No. 782 Squadron and [illegible] and the hospital to which it is intended to send the patients, stating in each instance the nature and degree of illness and whether medical officer will accompany the patient.

4. The E.T.A. of the air ambulance will be communicated by Donibristle to the authority making the application and to the air station (Naval, R.A.F. or Civil) from which the patient is being embarked. The station of embarkation will also be informed by Donibristle of the nature and degree of illness and whether a medical officer will accompany the patient.

5. The medical officer of the ship or establishment making the application for the

[illegible] medical officer shall [illegible] patient. A [illegible] and an oxygen resuscitation outfit [illegible] by R.N. Air Station [illegible]

VII. [illegible] illness where attitude or hospitalization [illegible] patient are [illegible] undertaken when delay will impair the [illegible] Medical Officer in Charge of Medicine at the Air Medical Inspection [illegible] prescribed [illegible] Finding.

6. After [illegible] the patient [illegible] the aircraft [illegible] the rear stretcher [illegible] flying, him and [illegible] the N.M.I.O. [illegible] immediately [illegible] patient to hospital.

7. When a patient [illegible] from a R.N. hospital [illegible] ambulance, the Station Medical Officer will receive from [illegible] Belcher one blanket [illegible] follow in exchange [illegible] patient.

8. Mental patients are [illegible] in air.

(A.L.O. 7044/45 *as cancelled*.)

801.—Warrant Wardmaster—Professional Examination January 1948—Result

(C.W. 3888/48.—5 Mar. 1948.)

The following successful result was obtained at the examination held in both January 1948:—

Ship or Establishment	Rating	Name	O.N.	Part 1 400	Part 2 250	Part 3 100	Part 4 150	Total Max. 900
R.N. Hospital Port Edgar	S.B.C.I. (I)	Campbell J.	C.M.X. 45935	245	200	110	120	685

809.—Sick Berth Staff Specialists—High Standard of Education Required for Certain Qualifications

(N.2.N. 1277/48.—5 Mar. 1948.)

The conditions in which Sick Berth Ratings may qualify in special subjects under the regulations of various civilian training bodies show that a certificate of a high standard of general education is usually required.

2. Whilst it must be realized that the number of Sick Berth Rating Specialists is limited and employment is not guaranteed, all Sick Berth Ratings should be advised that their general possession of the School Certificate will materially assist their careers both while in and after leaving the Service if they obtain Class I or Class II certificates in the Naval Higher Educational List.

882.—Medical Instructions for Naval Aircrew Personnel

(M.D.O. 30910/47.—12 Mar. 1948.)

A routine annual medical examination of all Naval aircrew personnel is to be carried out by the instructions given in Section III (a) of M.D.O. 2615/47. Medical officers in charge of Naval aircrew personnel are to ensure that this instruction is strictly followed.

2. Personnel who are considered by the medical officer to be unfit for flying duties or who are considered to be suffering from the effects of fatigue or stress are to be placed in the appropriate medical category and recommended for medical boards. (A.L.O. 2615/47, Section III (1)).

3. In the case of personnel who are found to be medically fit for flying duties the medical officer must satisfy himself beyond doubt that the aircrew duties they are expected to carry out for flying duties. In cases of doubt reference must be made to M.D.O. 168/47 should be consulted.

[illegible] printed to be made by the [illegible] M —48
(*Admiralty 3615/47 316/48 and C 4 F O 168/47*)

[illegible] —Medical Documents of R I N Personnel—Disposal
(M D G 49/48 48 —12 Mar 1948)

[illegible] Discharge certificates and copies of the clinical notes relating to [illegible] [illegible] sick quarters of R I N officers and ratings [illegible] [illegible] training are to be forwarded to the Naval [illegible] [illegible] Records Office 4 Central Buildings Matthew [illegible] [illegible] and despatch to Naval Headquarters (R [illegible]

976 —Protection against Cholera
(M D G 31/56/47 —19 Mar 1948)

[illegible] Marine personnel and Admiralty civilian staff [illegible] [illegible] required to receive protective inoculation [illegible]

[illegible] through India by air or
[illegible] through Japan by any route

[illegible] travellers proceeding to Egypt [illegible]
[illegible] against cholera consists of a dose of [illegible] [illegible] [illegible] of one cubic centimetre after [illegible] [illegible] [illegible] at least six days before the [illegible] [illegible] is required after a period [illegible]

[illegible] be given an International Certificate of Inoculation [illegible] the International Sanitary Convention of 1944 set [illegible]

[illegible] INOCULATION MUST BE CERTIFIED [illegible]

[illegible] whose signature appears below was on the dates recorded inoculated against cholera

Material			Inoculating Officer	
Date	Origin	Batch No and Type	Signature	Official Title

Signature of person inoculated — Home address

Official Stamp of Inoculating Officer — Date

THIS CERTIFICATE IS NOT VALID FOR MORE THAN SIX MONTHS FROM DATE OF ISSUE.
(*G M s 600A of Oct 1947 996/47 of Nov 1947 654/47 of Nov 1947 and 675/47 of Nov 1947 are cancelled*)

***979.—Sick Berth Attendants—Specialized Training**
(N 2 N 1840/48.—19 Mar 1948.)

[illegible] decided that as a temporary measure the following rules shall [illegible] in [illegible] specialized training in Electrical Therapy, Operating, Room Technique, Radiography [illegible] Assistant or as Sanitary Inspector.—

1. All [illegible] must be [illegible] to transfer to C.S. engagements.

[illegible] Sick Berth Attendants and above must have less than 15 [illegible] marks [illegible]

3. [illegible] Attendants must have [illegible] years of service and be qualified [illegible] with [illegible] in [illegible]

4. [illegible] of the expiry of his current engagement will be [illegible] as follows:

(a) Men who have completed [illegible] of service—to complete [illegible]

(b) Men who have not completed [illegible] years of pensionable service—for a further period [illegible] on the understanding that the option of signing on the [illegible] to recommend further re-engagement [illegible] completion [illegible] pension [illegible] they be [illegible]

5. No [illegible] specialized training [illegible] than [illegible]

[illegible] training in physiotherapy must publish in massage, medical gymnastics and medical [illegible]

Men [illegible] for the purpose of paragraphs (3) and (3) above.

1055.—Venereal Disease—Kahn and Wassermann Test Results
(M.D.G. 5981/48.—26 Mar 1948.)

The results of Kahn and Wassermann tests are to be communicated as early as possible to the Medical Officer of the ship or establishment concerned in order that the necessary treatment may be instituted without delay.

It is [illegible] that the port before these tests have been completed. The results are to be provided by confidential letter *by quickest route* (air mail if necessary) to the Medical Officer of the ship and a copy to the Fleet Medical Officer.

1109.—Dental Treatment—Recording and Dispensat of Records
(M.D.G. 8341/48.—26 Mar 1948.)

Form M 227a.—A dental envelope. Form M 227a is to accommodate dental records on Forms M 228, M 234 and S 31 is to be issued at training establishments in respect of each new entry or recruit on joining. His dental condition on joining is to be recorded on the front of the form. When training takes place in more than one establishment the dental envelope containing any dental records is to be transferred from one training establishment to another. When the new entry or recruit has finished his training the envelope containing his dental records is to be sent to the appropriate filing centre as shown below.

2. The dental records contained in Forms M 227a of invalided retired discharged or released Naval personnel are to be forwarded by Dental Officers in charge of filing centres to the Medical Director General. The dental discharge note is to be noted on Forms M 227a.

3. Forms M 228a.—The dental treatment of all personnel including Army, Air Force, Dominion and Allied personnel and miscellaneous patients) is to be recorded in ink on Forms M 228. Completed forms are to be sent monthly to filing centres as shown below.

4. The dental condition of Naval personnel on invaliding, retirement or discharge (excluding National Service personnel—*see* paragraph 7) is to be recorded in red ink on

[illegible] M 228 with [illegible] and [illegible] the appropriate dental centres. The date and [illegible] discharge [illegible] in this form.

[illegible] Form M 24[illegible] M [illegible] (in duplicate) is used to [illegible] dental recording of [illegible] dental [illegible].

[illegible] letter N S [illegible] inverted chevron in the top right hand corner of all Forms M [illegible] and M 188 [illegible] respected National Service personnel.

[illegible] M 5[illegible] [illegible] conditions of National Service personnel on final dispersal [illegible] M 5[illegible] which are to be used forthwith for this purpose. The [illegible] taken at the units dental final dispersal centre and the [illegible] to the Command [illegible] Senior Dental Surgeon of the manning port of [illegible].

Filing Centres for Dental Records

[illegible]	Command Dental Surgeon R N Barracks Chatham
[illegible]	Command Dental Surgeon Ratings Port Division
[illegible]	Senior Dental Surgeon R N Barracks Lee on Solent
[illegible] R M [illegible]	
[illegible]	Senior Dental Surgeon R M Depot Deal
[illegible]	Senior Dental Surgeon R M Barracks Manna Division
R M [illegible]	Dental Officer Royal Naval School of Music Bulwark Camp Bulford Salisbury
W R N S [illegible]	Command Dental Surgeon R N Barracks Devonport
R F R [illegible]	Command Dental Surgeon Ratings Port Division
R N R [illegible]	Senior Dental Surgeon R N Barracks Portsmouth
R N V [illegible]	Senior Dental Surgeon R N Barracks Devonport
[illegible]	Senior Dental Surgeon R N Barracks Chatham
[illegible]	Medical Director General

8. [illegible] All personnel are to be forwarded [illegible] M [illegible] accompanied by a nominal list [illegible] dental treatment [illegible] M [illegible] First aid of individual [illegible] M 228.

[illegible] the case of Dominion personnel [illegible] Dominion [illegible] treatment [illegible].

[illegible] 59 5 46 1871 47 [illegible] 4 1347 47 1
[illegible] 111 40 782 47 [illegible] 1 360 4 [illegible] (Gen II 1)

1198.—Medical—Mass Radiography—Procedure for Dealing with Cases Requiring Investigation in Hospital
(M D G 4787 48 9 Apr 1948)

When a case is picked-up [illegible] initial or [illegible] large film X ray and investigation in hospital is required, the following procedure is to be adopted:

1. (a) *When the individual belongs to a ship or establishment carrying a Medical Officer*

(i) The individual is to be declared to ship or establishment accompanied by M 188 (in duplicate) together with X ray films, S 220 (in duplicate) and [illegible] record card, viz

[illegible]

[illegible]

NAME [illegible] [illegible] hours
RATING [illegible] [illegible] right upper [illegible]
OFF. No. [illegible] SN 12345
Nat. [illegible] [illegible] R.N.H. [illegible]
LENGTH OF SERVICE [illegible]
MESS [illegible]
WEIGHT [illegible]

[illegible]

(A.F.O. [illegible] 1404.)

***1389.—Prizes—Sick Berth Petty Officers' Efficiency Medal**

(N. 2/N. 3998/48.—23 Apr. 1948.)

The Sick Berth Petty Officers' Efficiency Medal for 1948 has been awarded to [illegible] Sick Berth Petty Officer Harry Edward Gay, D/MX 54723.

2. Sick Berth Petty Officers of the Chatham Port Division may be recommended for the award of the medal in 1949 for their services during 1948.

3. The method of forwarding recommendations is published in the Appendix to Navy List, page 152 of the December, 1947, edition.

4. It is not practicable under present conditions for the medal to be [illegible]. It has accordingly been decided to issue a bronze medal with a certificate that [illegible] has been awarded, but cannot be minted in gold under present conditions.

1451.—Medical—Yellow Fever—Protective Inoculation

(M D G 43514/46—30 Apr 1948)

Paragraph 10 of A F O 952/48 is to be *deleted* and the following *substituted* —

10 Yellow fever inoculations can be carried out at the Naval Establishments [illegible] in paragraph 9 and also at the following establishments

London The Wellcome Foundation
183–193 Euston Road N W 1

All appointments for the Wellcome Foundation are to be made through the President Admiralty Medical Board Queen Anne's Mansions St James' Park London S W 1 (Tel WHI 9444 ext 695)

Ministry of Health and Department of Health for Scotland Centres

England and Wales		*Tel No*	*Times*
Birmingham	Regional Blood Transfusion Centre 17 Highfield Road Edgbaston Birmingham 15	Edgbaston 1182	Tuesday 2 to 3 p m
Bristol	Regional Blood Transfusion Centre Southmead Hospital Bristol	Bristol 68011/3	Tuesday 2 to 3 p m
Cambridge	Regional Blood Transfusion Centre Brooklands Avenue Cambridge	Cambridge 2536	Monday 2 30 to 3 30 p m
Cardiff	Regional Blood Transfusion Centre 19 Newport Road Cardiff	Cardiff 4521	Monday 2 30 to 3 30 p m
Leeds	Regional Blood Transfusion Centre Beckett Path York Road Seacroft Leeds	Leeds 45091/2/3	Friday 2 to 3 p m
Manchester	Regional Blood Transfusion Centre Manchester Royal Infirmary Oxford Road Manchester 13	Ardwick 3832	Tuesday 2 30 to 3 30 p m
Newcastle-on-Tyne	Regional Blood Transfusion Centre 78 Jesmond Road Newcastle-on-Tyne 2	Jesmond 2992	Monday 2 to 3 p m
Oxford	Southern Regional Blood Supply Depot Churchill Hospital Headington Oxford	Oxford 61318	Monday 2 to 3 p m
Plymouth	Regional Blood Transfusion Sub Centre City General Hospital Plymouth	Plymouth 5021	
Southampton	Pathological Department Royal South Hants and Southampton Hospital Hanover Street Southampton (Inoculation Officer Dr H H Grave)	Southampton 76211	Tuesday 2 30 p m
Truro	Pathological Department Royal Cornwall Infirmary Truro (Dr I D M Buckingham)	Truro 3029	Tuesday 10 to 11 a m
Scotland			
Aberdeen	City Hospital Laboratory City Hospital Urquhart Road Aberdeen	Aberdeen 2242 Ex 11	Thursday 3 p m (only by arrangement)
Dundee	University of St Andrews Bacteriological Department Medical School 60 Small's Wynd Dundee	Dundee 2144	Monday 2 p m

			T. T. N.	*T.*
[illegible]	[illegible] Medical Officer	[illegible]	Edinburgh 26031	[illegible] 2 30 [illegible] 3 30 [illegible]
[illegible]	[illegible] Health Officer	[illegible] Glasgow Central 9600 Ext. 302		Friday 2.30 p.m.
[illegible]	[illegible] Health Officer Emergency Hospital Park Balmuir Road	Belfast 87693	By arrangement with Medical Superintendent	

[illegible] particulars will be given to these Centres but in [illegible]

(*T. T. O. 557/48*)

1530.—Hospitals—R.N. Hospitals, R.M. Infirmaries and R.N. Sick Quarters—Home

(*M.O. 547/48 and M.O. 1948*)

The following R.N. Hospitals, R.M. Infirmaries and large R.N. Sick Quarters [illegible] are commencing [illegible] and there have been an average of [illegible] and dependants [illegible]

R.N. Hospitals	*Telephone*	*Telegraphic Address*	*Nearest Railway Station*
R.N.H. [illegible] Devonport	[illegible] Ext. 44[illegible]	Medical Plymouth	North Road Plymouth
R.N.H. [illegible] Portland	Weymouth 1368 Ext. 231	Medical Portland Harbour	Portland
R.N.H. [illegible] Chatham	[illegible] 1871 Ext. 134	Medical Chatham	Chatham (Kent)
R.N.H. [illegible] Gosport	Gosport 3221 Ext. 28	Medical Chatham	Gillingham (Kent)
R.N.H. [illegible]	Gt. Yarmouth 2981	Naval Gt. Yarmouth	Southtown Gt. Yarmouth
R.N.H. [illegible]	[illegible] 108	Medical Sandal Oxford	Dakeney
R.M. Infirmaries			
R.M. Infirmary Plymouth Devon	Plymouth 3066 Ext. 84	Medical Plymouth	North Road Plymouth
R.M. Infirmary Portsmouth Hants	Portsmouth 74571 Ext. 44 Portsmouth 6193	Miners Sick Portsmouth	Fratton
R.M. Infirmary Chatham Kent	Chatham 4291 Ext. 885	Minerals Chatham SM1	Chatham
R.M. Infirmary Deal Kent	Deal 436 Deal 1047 Ext. 5	R.M. Infirmary Deal	Deal
R.N. Sick Quarters			
R.N.S.Q. R.M.S. Raleigh Falmouth Cornwall	Falmouth 1712 Falmouth 5	H.M.S. Raleigh Falmouth	Falmouth Western Road, Falmouth; Rosemullion, Falmouth; Sandy Cove, Falmouth; Rosemullion, Falmouth; Falmouth Road; Falmouth Road; Falmouth Road

*R N S [illegible] [illegible] N [illegible] [illegible] [illegible]

[illegible] 2278 [illegible]

[illegible]

4 [illegible]

5 [illegible] accommodation in a limited number of bed cases is available

6 Patients should be sent to the Centre [illegible] except for meniscectomy cases who should not be [illegible] after operation

7 Neuropsychiatric cases are NOT [illegible]

8 Patients with sciatica and flat feet [illegible]

9 Bed tickets and X rays should [illegible] All baggage should also accompany patients

10 On discharge of a patient [illegible] X rays will be returned to the hospital sending them [illegible] details of progress while at the Centre and final disposal

11 HM ships and establishments [illegible] transfer to the Centre [illegible] Royal Marines [illegible] to be forwarded to the Supply Officer HMS [illegible] the main building the [illegible] Centre the victualling transfer list will [illegible] showing the period victualled at the Centre [illegible] account

(A F O 1398/47 and A C M 046/47 [illegible] cancelled)

1575.—Form M.248—Medical Examination for Naval Aircrew Personnel

(M D G 10873/48 7 Mar 1948)

The annual medical examination of naval aircrew personnel as required by Section III (A) of A F O 2615/47 is to include a medical radiographic examination of the chest on each occasion

(A F O 2615/47)

1576.—Form S.544—Deaths Abroad—Re introduction of Peace-Time Procedure for Reporting

(C W 951/47 — 7 Mar 1948)

As from 1st July 1948 the rules laid down in K R and A I Article 869 for reporting details of Naval personnel on Form S 544 to the Registrar General are to be applied to deaths occurring outside the United Kingdom

(K R and A I Article 869)

(A F O 6177/43 is cancelled)

1616.—Medical—Ratings and Royal Marines other Ranks—Disposal of those Suffering from Mental Disabilities

(M D G 37972/47 14 May 1948)

[illegible] ratings and Royal Marines other ranks suffering from mental disabilities (including [illegible] certifiable [illegible] and psychiatric [illegible] can be admitted to the Royal Naval Hospital Haslar [illegible]

1 Arrangements for admission to Royal Naval Hospital Haslar [illegible] suitable are to be made by the Medical Officers in Charge of Royal Naval Hospitals and other medical establishments [illegible] the Medical Officer in Charge Royal Naval Hospital Haslar

1693 —Medical—Pulheems System—Weighing of Ships' Companies—Discontinuation of Six Monthly Records
(N. I. N. 1981/48 —11 May 1948)

It has been decided that the annual Pulheems assessment and the periodic radiographic examination of chests under it are unnecessary to record separately the weights of Ships' companies every six months.

2. In R. and A.I. Articles 1087n and 1393 will be amended in due course.

(B.R. 1750 and B.R. 1750 1.)

(A.R. and A.I. Articles 1087n and 1393.)

(A.T.O. 1976/47.)

1754 —Diver First, Second and Third Class—Medical Examination
(N. 2/N. 4884/48 —28 May 1948)

All and Petty Officer Diver First, Second and Third Class are to be examined previously [illegible] establishments. There is no age limit for qualifying for First and [illegible] Diver. The Age for qualifying for Third Class Diver should not exceed 25. A certificate of medical fitness after examination in accordance with the following [illegible] accompany the application for the diving course.

[illegible] must have a certificate of Pulheems assessment of not less than P 2 1 2 [illegible] H. [illegible] chest should be repeated if this has not been carried out in the [illegible] months. In the case of acute conditions must be completed before [illegible]

3. The following conditions are disqualifying:

(1) [illegible] conditions.

(2) [illegible] extensive abdominal surgery.

(3) [illegible] disqualifying.

(4) [illegible] defects.

(5) [illegible] unless successful treatment has been [illegible]

(6) [illegible] unless successful treatment has been completed.

(7) [illegible] the following:

(a) [illegible] and middle. The Diver [illegible] patient (Valsalva test). This must be [illegible]

(b) [illegible] to establish [illegible] of the ear drum. [illegible] of tubes.

(c) [illegible] Diver [illegible] months, and [illegible] months.

(8) [illegible] During School Motor [illegible]

[illegible] Diver First Class Diver will be examined [illegible]

(a) [illegible] less than 15 bpm.

(b) [illegible] chart [illegible] 15 seconds.

(c) [illegible] Diver [illegible]

7. B.R. 155/43 (Diving Manual) will be amended [illegible]

(B.R. 155/43.)

1827 —Eyesight—Night Vision Testing—Establishments Detailed to carry out Tests
(M.D.G. 12400/48 —4 Jun 1948)

It has been decided that night vision testing will be carried out only in the following establishments —

H.M. [illegible]
R.N. [illegible]
H.M. Gourlay S.[illegible]
H.M.S. Merlin
H.M.S. Raleigh
H.M.S. Imperieuse
H.M. Sigaal S.[illegible]
H.M. Sigaal S.[illegible]
Royal Marine [illegible]
Royal Naval Barracks [illegible]
Royal Naval Hospital [illegible]
Bermuda Multi-Hosp. [illegible]
Central Air Medical Board
Royal Naval Air Station at Home (as directed by Flag Officer Air (Home))
Royal Naval Air Station Hal Far
Royal Naval Barracks, Portsmouth
Royal Naval College, Dartmouth
Admiralty Medical Board
H.M. ships S.S. [illegible] Camps Brackenhurst, Rollo, Arthur

2. All ships and establishments in the circumstances in paragraph 1 should have their adaptoscopes to Admiralty Research Laboratory, Teddington, Middlesex, and should arrange for the testing of the night vision of other permanent personnel in accordance with C.A.D. 71/46 and H.S.T.A.L. 1423/46.

(C.A.D. 74/46 and H.S.T.A.L. 1423/46.)
(H.S.T.A.L. 2294/47 is cancelled.)

1908.—Medical—Treatment of Venereal Disease—REPORTS
(M.D.G. 4751/48.—11 Jan. 1948.)

Scope.

The treatment of syphilis with penicillin is to be confined to the R.N. Hospital, Haslar, hospital ships and establishments where a trained Urinary Specialist (or medical officer specially appointed for venereal disease work) is located. Treatment of syphilis *will not* be carried out elsewhere.

In hospital ships and establishments where a trained Urinary Specialist (or medical officer specially appointed for venereal disease work) is not borne, the following procedure is to be followed:

(a) Cases of penile sore which cannot be diagnosed by dark ground examination are to be sent to hospital at the first opportunity. No treatment other than the local application of sulphonamide dressings should be given until the diagnosis is definitely established.

(b) In cases diagnosed as [illegible] positive dark ground examination treatment with arsenic and bismuth should be initiated if circumstances prevent their transfer to hospital within 14 days. They are to be sent to the nearest Urinary Specialist at the first opportunity.

(c) [illegible] responding satisfactorily to treatment should be [illegible] relapses [illegible] Urinary Specialist.

(d) [illegible] positive blood W.R. Kahn tests without clinical signs [illegible] be referred to a Genito Urinary Specialist before commencing treatment. In such cases it is essential to have confirmatory blood tests [illegible] sugar in the C.S.F. before commencing treatment. If the diagnosis of syphilis is doubtful clinically the diagnosis should be [illegible] positive W.R.

It is emphasised that all examination of the genital area (including [illegible]) should be carried out with suspicion and all tests for syphilis should be carried out before the patient is discharged from medical care.

[illegible] antisyphilitic treatment [illegible] and Injection [illegible] [illegible] as required [illegible]

(b) Medical Officers [illegible]

[illegible]

[illegible] Medical Officer [illegible] the treatment [illegible] to the Medical Officer [illegible]

[illegible] The present [illegible] N. S. H. [illegible] Directive [illegible] medical officer [illegible] period of two years [illegible]

[illegible]

[illegible]

Registr[illegible]
Venereal [illegible]

[illegible]

[illegible]

Result [illegible]
be record[illegible]
the Court [illegible]

No pro[illegible] into [illegible]

(*c*) While th[illegible] me[illegible]
necessary [illegible] not [illegible]
and the [illegible]

(*d*) In th[illegible]
[illegible] Commonwealth [illegible]

(*e*) M[illegible] [illegible] 15)
This and [illegible] inter
treatment [illegible]
Vid al [illegible]

[illegible]
[illegible] first plan with [illegible]
sulphonamides [illegible]
taken in W R [illegible]
clinical examination [illegible]

(*b*) Penicillin [illegible]
Oxford units [illegible]
hourly intervals [illegible] 50 000 [illegible]
muscular injection are usually [illegible]

A gradually decreasing number [illegible]
found in [illegible]
tin against persistent [illegible]
gonorrhœa and penicillin as the [illegible]

(*c*) All cases of [illegible]
month by [illegible] for the [illegible]

(*d*) Cases [illegible]
(7 8 [illegible] penicillin [illegible]
the recognition [illegible]

(*e*) Personal Cards [illegible]
issued to all cases [illegible]
methods etc

(*f*) In Singapore established [illegible]

[illegible] Genito-Urinary [illegible] If this [illegible] before any form [illegible] and sent [illegible] the direct [illegible] the pre[illegible] slides [illegible] in stock [illegible]

[illegible] Syphilis [illegible]

[illegible] central supply [illegible] Bismuth [illegible] R.N. Medical Department [illegible] requirements [illegible] the usual manner.

APPENDIX A

[illegible] Syphilis [illegible]

[illegible] Department R.N. [illegible]

[illegible]

Medical Officer

APPENDIX B

[illegible] Syphilis Cas[illegible]

[illegible] Department R.N. Camp [illegible]

[illegible] Mgm.

W.R.

[illegible]

Medical Officer

[illegible] 806/43, 4958/44, 243/47, 362/47 and [illegible] 80/47 [illegible]

2042.—Medical History Sheets and Forms M 51 of Naval Personnel Dispersed—Disposal
(M.D.C. 1446/48.—18 Jun 1948.)

Medical History Sheets and Forms M 51 of Naval personnel dispersed are to be addressed in future to

Medical Director General
(Medical Records Section)
Admiralty
London, S.W.1

(*A.T.O. 1279/47 is cancelled.*)

***(2065.—Medical, Hospital and Dental Treatment Abroad—Arrangements from 5th July, 1948**
(P.M. 4164/48.—25 Jun 1948.)

The following arrangements for the provision of medical, hospital, dental, etc. treatment will come into force as from 5th July, 1948.

2. There will be no change in the entitlement or in the arrangements for provision of medical treatment for serving officers, ratings and other ranks of the Royal Navy and Royal Marines.

3. The arrangements described below will apply to—

(a) United Kingdom based Non-Industrial and Industrial staff.

(b) Families of serving officers, ratings and other ranks other than locally entered personnel, and of United Kingdom based Non-Industrial and Industrial staff, whose presence in the Station has been approved.

4. The National Health Service applies only to the United Kingdom and makes no provision for treatment abroad. Arrangements will, however, be made so far as practicable to provide for the persons specified in paragraph 3 medical and dental treatment and benefits equivalent to those to be provided free of charge by the National Health Service in the United Kingdom. As from 5th July, no charge will be made for any such services provided to entitled persons by the Navy, Army and Air Force medical services, and repayment will be allowed for expenses incurred, subject to the general conditions set out in this Order.

5. The benefits so covered include—

Medical, including hospital and maternity treatment.
Dental treatment.
Optical treatment.

and the supply of necessary appliances. For the present, the supply of appliances or treatment will be in conformity with existing service standards. For treatment or appliances in excess of these standards, are demanded by patients, the excess cost will have to be paid for by the individual in accordance with regulations to be published in due course.

6. Treatment, etc., will normally be provided by the Naval, Army or Air Force medical services, or from other Crown facilities, where available. Where there are no service or Crown facilities, treatment will, wherever possible, be provided by arrangements made officially with local hospitals and practitioners, either under direct control with the Admiralty, or under agreed scales of charges. Where such arrangements cannot be made, lists may be drawn up of suitable civilian hospitals or practitioners.

7. Where any such arrangements as outlined in paragraph 6 have been made, it will be a condition of the provision of free treatment or repayment, for expenses, that use is made of the official facilities (or recognised practitioners and hospitals). The arrangements applicable at each Station will be published as soon as possible in local orders.

8. Where there are no arrangements of the kind described in paragraph 6, individuals will make their own arrangements for necessary treatment on the most reasonable terms available, and forward a claim for refund through normal channels. Expenses so incurred will be repaid provided that the proper authority is satisfied—

(a) that the treatment was necessary,

(b) that the arrangements made were reasonable

[illegible] that necessary [illegible] the [illegible] and any claim [illegible] the [illegible] have been [illegible] ants [illegible]

[illegible]

OBITUARY

[illegible] ng deaths and external [illegible]

[illegible] LASSON R.N. died in [illegible] in 1899 and [illegible] in 1900. He was [illegible] Service in 28th May 1918 [illegible] R.N. [illegible] in the [illegible] the [illegible] tax [illegible] 1918.

[illegible] MERNIMENT *OBI* R.N. [illegible] 1878 he published in 1879 [illegible] age in 1897. He [illegible] 1905 [illegible] in May 1911 and [illegible] 1913 [illegible] W. H. W. was Surgeon Rear Admiral of the *OBI* [illegible] in the R.N. [illegible]

[illegible] O. R.N. (Ret.) [illegible] 1878 [illegible] 1902 at [illegible] 1902. He was [illegible] Surgeon [illegible] the M.L.C. [illegible] H.M. [illegible] 1921 he was placed [illegible]

[illegible] R.N. (Ret.) [illegible] DIS [illegible] 1878 [illegible] 1889 and [illegible] W. H. W. Surgeon Com [illegible] Hospital. On 16th [illegible]

[illegible] *BI* R.N. [illegible] 1948 [illegible] qualified in 1885 and [illegible] Medical [illegible] 1886. He was promoted [illegible] Tribunal [illegible] 1902 to Surgeon Captain [illegible] Rear Admiral [illegible] the Home Station [illegible] *BI* [illegible] 1948 [illegible]

HONOURS AND AWARDS

Companion of the Order of the Bath

[illegible] Joseph Aloysius O'Flynn, M.D., B.Ch., D.P.M., M.R.C.P., F.R.C.P.I.

[illegible] Hubert Drake Brownfield, *O.B.E.*, M.B., B.S., M.R.C.P., F.R.C.P., F.H.P.

[illegible] of the Order of the British Empire

[illegible] Hugh Kinnis, M.S.H., F.R.C.P.A.S.

[illegible] Hunt, M.B., B.Ch.

[illegible] of the Order of the British Empire

[illegible] John Ward Walker, M.B., Ch.B.

[illegible] of the Royal Red Cross

Mr. [illegible] M.B., Ch.B., [illegible] A.R.R.N.S.

Mr. A. Mair, O.A.R.R.N.S.

Mr. V. Brand, C.[illegible] A.A.D.

[illegible] Order of the British Empire

Mr. William Cecil Hugh [illegible], Commissioned Wardmaster.

Sub Bert. Petty Officer [illegible], Hallahan, D.M., 7878.

British Empire Medal

Sub Bert. Chief Petty Officer [illegible] Chief, C.M.N., 1[illegible].

Sub Bert. Chief Petty Officer John [illegible] Shipley, C.M.N., 5[illegible].

Appointed Honorary Physician to the King

Surgeon Rear-Admiral [illegible] Surgeon.

Surgeon Captain J. F. M. Campbell, R.N.

[illegible] Assistant [illegible] Bt. [illegible]

Surgeon Captain [illegible] S. Reid, B.A., M.B., B.Ch., F.R.C.S.(I.), R.N.

TRANSFERS TO THE PERMANENT LIST

Surgeon Lieutenant D. C. Dalgleish, transferred to the Permanent List [illegible]

Surgeon Lieutenant G. J. M. Cliff, transferred to the Permanent List [illegible]

Surgeon Lieutenant W. T. Crocker, transferred to the Permanent List, 9th April [illegible]

Surgeon Lieutenant (D) H. J. Clerk, transferred to the Permanent List, 6th May [illegible]

TRANSFERS TO SHORT SERVICE COMMISSIONS

Temporary Surgeon Lieutenant C. R. Wheldon, R.N.V.R., transferred to [illegible] Commission, 31st December 1947.

Temporary Acting Surgeon Lieutenant A. C. Miller, R.N.V.R., transferred to [illegible] Commission, 5th January 1948.

Temporary Surgeon Lieutenant (D) [illegible] Reed, R.N.V.R., transferred to [illegible] Commission, 8th January 1948.

Temporary Surgeon Lieutenant W. D. Mackenzie, R.N.V.R., transferred to [illegible] Commission, 14th January 1948.

Temporary Surgeon Lieutenant P. D. A. Durham, R.N.V.R., transferred to [illegible] Commission, 4th February 1948.

Temporary Temporary Acting Surgeon Lieutenant J. A. D. Hurst, R.N.V.R., transferred to Short Service Commission, 19th February 1948.

PROMOTIONS

[illegible] Fleet R W G Lancashire [illegible] November 1947

[illegible] Commander C C Denny promoted to Acting Interim [illegible] [illegible] 1948

[illegible] C St J Davies promoted to Acting Lieutenant Surgeon [illegible] 28th [illegible] 1948

[illegible] Commander J [illegible] Wellwood promoted to Acting [illegible] 4th January 1948

[illegible] W Hewitt promoted to Acting Interim Surgeon Lieutenant [illegible] 1st [illegible] 1948

[illegible] Lieutenant J Weir promoted to Surgeon Lieutenant Commander 15th [illegible] 1948

Surgeon Lieutenant L R Aston promoted to Surgeon Lieutenant Commander 13th March 1948

Surgeon Lieutenant (D) I T Heaton promoted to Surgeon Lieutenant Commander (D) 18th March 1948

Surgeon Lieutenant A O Foster promoted to Acting Interim Surgeon Lieutenant Commander 25th March 1948

Surgeon Lieutenant Commander G L Hardman promoted to Acting Interim Surgeon Commander 2nd April 1948

Surgeon Lieutenant Commander B M Goldsworthy promoted to Acting Interim Surgeon Commander 3rd April 1948

Acting Interim Surgeon Lieutenant-Commander (D) I D Hodgson promoted to Surgeon Lieutenant Commander (D) 5th April 1948

Surgeon Lieutenant Commander S Miles promoted to Acting Interim Surgeon Commander 24th April 1948

Surgeon Lieutenant Commander W S Miller promoted to Acting Interim Surgeon Commander 8th May 1948

Surgeon Lieutenant Commander L R Noisworthy promoted to Acting Interim Surgeon Commander 8th May 1948

Surgeon Commander J M Sloane promoted to Surgeon Captain 30th June 1948

RETIREMENTS

Surgeon Captain G F Heath inverted on Retired List date to be reported.

Surgeon Captain M S Morse inverted to Retired List date to be reported.

Surgeon Commander N B de M Christmas placed on the Retired List (medically unfit) 15th March 1948

Surgeon Commander (D) L M Hughes placed on the Retired List (medically unfit) 1 April 1948

Surgeon Captain H L P Percyjone inverted on Retired List 28th April 1948

Surgeon Commander J G Vincent Smith placed on the Retired List (medically unfit) 4th May 1948

Surgeon Lieutenant Commander H J Watson resigned 7th May 1948

Surgeon Captain F H Acey inverted on Retired List 19th May 1948

Surgeon Captain F L H MacDonald placed on the Retired List (age) 12th June 1948

Surgeon Captain A W Gunn M D O retired to Retired List (medically unfit) 14th June 1948

ENTRIES FOR SHORT SERVICE COMMISSIONS

J R J Dell L D S R C S entered as Acting Surgeon Lieutenant (D) for Short Service Commission 23rd January 1948

P S Holmes L D S R C S entered as Acting Surgeon Lieutenant (D) for Short Service Commission 23rd January 1948

[illegible] M.R.C.S., L.R.C.P. entered as Acting Surgeon Lieutenant [illegible] Short Service Commission 13th February 1948

[illegible] W. Sykes, M.B., B.Ch. entered as Acting Surgeon Lieutenant [illegible] Short Service Commission 13th February 1948

[illegible] A. Rosen, B.D.S. entered as Acting Surgeon Lieutenant [illegible] Short Service Commission 27th February 1948

[illegible] J. O'Kelly, M.B., B.Ch. entered as Acting Surgeon Lieutenant [illegible] Short Service Commission 5th March 1948

[illegible] L. Hirst, L.D.S., R.C.S. entered as Acting Surgeon Lieutenant [illegible] Short Service Commission 16th April 1948

[illegible] J. Bird, L.D.S. entered as Acting Surgeon Lieutenant [illegible] Short Service Commission 23rd April 1948

[illegible] H. Boyes, L.M.S.S.A. entered as Acting Surgeon Lieutenant [illegible] Short Service Commission 30th April 1948

[illegible] J. Turner, L.R.C.P., L.R.C.S. entered as Acting Surgeon Lieutenant [illegible] Short Service Commission 30th April 1948

[illegible] Hulldis, M.B., Ch.B. entered as Acting Surgeon Lieutenant [illegible] Short Service Commission 14th May 1948

W. J. Owen, M.B., Ch.B. entered as Acting Surgeon Lieutenant [illegible] Short Service Commission 28th May 1948

[illegible] J. Pickering, L.D.S. entered as Acting Surgeon Lieutenant [illegible] Short Service Commission 28th May 1948

M. [illegible] Davies, L.M.S.S.A. entered as Acting Surgeon Lieutenant [illegible] Short Service Commission 10th June 1948

[illegible] J. Horsey, M.R.C.S., L.R.C.P. entered as Acting Surgeon Lieutenant [illegible] Short Service Commission 8th July 1948

ROYAL NAVAL VOLUNTEER RESERVE

PROMOTIONS

Surgeon Lieutenant J. Macdonald promoted to Surgeon Lieutenant Commander 24th January 1948

Surgeon Lieutenant J. Miskelly, *D.S.C.* promoted to Surgeon Lieutenant Commander 1st March 1948

Surgeon Lieutenant J. G. Craddock promoted to Surgeon Lieutenant Commander 1st April 1948

Surgeon Lieutenant G. McI. Forsyth promoted to Surgeon Lieutenant Commander 10th June 1948

Surgeon Commander J. B. Oldham, *V.R.D.* promoted to Surgeon Captain 30th June 1948

Surgeon Lieutenant Commander S. B. Levy promoted to Surgeon Commander 30th June 1948

Surgeon Lieutenant Commander D. R. Hughes, *V.R.D.* promoted to Surgeon Commander 30th June 1948

RETIREMENTS

Surgeon Lieutenant-Commander R. M. Marshall placed on the Retired List at own request 19th April 1948

Surgeon Lieutenant Commander T. J. S. Goivar, *V.R.D.* placed on the Retired List at own request 14th May 1948

ENTRIES

D. L. Sharples, M.B., Ch.B. entered as Probationary Temporary Acting Surgeon Lieutenant 16th January 1948

T. C. [illegible], L.R.C.P., L.R.C.S., L.R.F.P.S. entered as Probationary Temporary Acting Surgeon Lieutenant 9th January 1948

P W [illegible] M B B S L R C P M B B S entered as [illegible] Acting, S[illegible] 10th January 1948

[illegible] M B C h B entered as Probationary Temporary [illegible] 1948

W [illegible] M B C h B entered as Probationary Temporary [illegible] 1948

W [illegible] M B entered as Probationary Temporary Acting, Surgeon Lieutenant [illegible]

[illegible] M B B S M R C S L R C P entered as Probationary [illegible] 25th February 1948

[illegible] M B B C h entered as Probationary Temporary Acting [illegible] 1948

[illegible] M R C S L R C P entered as Probationary Temporary Acting [illegible] 1948

[illegible] M R C S L R C P entered as Probationary Temporary Acting [illegible] 2nd April 1948

[illegible] M B C h B entered as Probationary Temporary Acting [illegible] April 1948

[illegible] M B B S entered as Probationary Temporary Acting Lieutenant [illegible] 3rd April 1948

A [illegible] M B C h B entered as Probationary Temporary Acting Lieutenant [illegible] 30th April 1948

A [illegible] M B C h B entered as Probationary Temporary Acting Lieutenant [illegible] 30th April 1948

[illegible] M R C S L R C P entered as Probationary Temporary Acting Lieutenant [illegible] 30th April 1948

A [illegible] M B B C h M R C S L R C P entered as Probationary Temporary Acting Lieutenant 14th May 1948

[illegible] M R C S L R C P entered as Probationary Temporary Acting Lieutenant [illegible] 18th May 1948

[illegible] M B C h B entered as Probationary Temporary Acting Lieutenant [illegible] 18th May 1948

[illegible] B D S entered as Probationary Temporary Acting Surgeon Lieutenant (D) 28th May 1948

R [illegible] M R C S L R C P entered as Probationary Temporary Acting Surgeon Lieutenant 11th June 1948

[illegible] M B C h B entered as Probationary Temporary Acting Surgeon Lieutenant 11th June 1948

[illegible] M R C S L R C P entered as Probationary Temporary Acting Surgeon Lieutenant 11th June 1948

[illegible] M B B S entered as Probationary Temporary Acting Surgeon Lieutenant 28th June 1948

QUEEN ALEXANDRA'S ROYAL NAVAL NURSING SERVICE

TRANSFERS TO THE PERMANENT LIST

Miss M C Guthrie Nursing Sister Q A R N N S transferred to Permanent Service 28th April 1948

Miss B Quill Nursing Sister Q A R N N S transferred to Permanent Service 3rd June 1948

PROMOTIONS

Miss V I M Gowers Nursing Sister Q A R N N S promoted to Acting Senior Sister 24th June 1948

[illegible]

[illegible] appointment [illegible]

[illegible] T. J. Magee, Acting [illegible] terminated [illegible] 23rd June 1948

WARDMASTER OFFICERS

TRANSFERS TO THE PERMANENT LIST

Temporary Warrant Wardmaster S. G. Allard transferred to the Permanent List 18th March 1948

Temporary Warrant Wardmaster H. F. M. Jones transferred to the Permanent List 18th June 1948

PROMOTIONS

Acting Commissioned Wardmaster A. A. Spiers promoted to Commissioned Wardmaster 1st April 1948

Acting Commissioned Wardmaster S. J. Tilley promoted to Commissioned Wardmaster 1st April 1948

Commissioned Wardmaster D. Barnard promoted to Wardmaster Lieutenant 20th May 1948

Commissioned Wardmaster W. J. Walsh promoted to Wardmaster Lieutenant 18th June 1948

RETIREMENTS

Temporary Warrant Wardmaster J. M. C. [illegible] released 2nd May 1948

Acting Commissioned Wardmaster J. [illegible] placed on the Retired List and released 26th May 1948

Wardmaster Lieutenant S. [illegible] Pack, *M.B.E.* placed on the Retired List 18th June 1948

Notices

THE 1947 YEARBOOK

The Yearbook of the British Standards Institution, which has just been published, gives a subject index and a complete [illegible] British Standards now current. These standards are [illegible] amendments and additions.

The Yearbook includes lists of the Council of the Institution, the Divisional Boards and the Industry Committees. The Institution's roll is the official membership of its work.

The Yearbook price 3s. 6d. post free [illegible] Publications, S.I. Department, British Standards Institution, 24 Victoria Street, London, S.W.1.

BRITISH STANDARD FOR METHOD OF DETERMINING THE FLAMMABILITY OF FABRICS (B.S. No. 1417)

British Standard No. 1417 of the [illegible] British Standards Institution, of determining the inflammability of fabrics, [illegible]

Standard specimens are given in proportion to

(a) [illegible] exposure to heat,

(b) colour separation negative coating, by [illegible] lightness, and

(c) the making of photomicrographs [illegible] yellow or white flame [illegible]

Because [illegible] a given [illegible] siderably [illegible] reaching the [illegible] the decade [illegible] typical [illegible]

The [illegible] require [illegible] Fast [illegible] [illegible] lards In [illegible]

[illegible] 1947

Preparations

[illegible] new compound for [illegible] [illegible] 14 [illegible] Williams [illegible] [illegible] Williams [illegible]

[illegible] VANS

[illegible] of [illegible] [illegible] 5 000 [illegible] 1 000 [illegible]

[illegible] Glass [illegible]

[illegible] dried [illegible]

[illegible] Evans Medical Supplies [illegible]

VOLUME XXXI. OCTOBER 1948 No. 4

Journal

of the

Royal Naval Medical Service.

Articles

A MEDICO-LEGAL APPOINTMENT

BY

Surgeon Commander J. L. S. COULTER, D.S.C., M.R.C.S., L.R.C.P., R.N.

THE medico-legal duties of the average naval medical officer are usually confined to attending occasional inquests and boards of inquiry as an expert witness, the performance of post mortem examinations and the application of the principles of medical examinations laid down by Confidential Admiralty Fleet Orders in cases which are likely to become the subject of disciplinary action. In other words, the common medico-legal associations of a naval medical officer are concerned with being interrogated; rarely is he likely to find himself in the position of interrogator when called to attend any form of judicial proceeding.

In September, 1946, the author was Principal Medical Officer of a Naval Base in the Dejaos, was officially appointed His Majesty's Coroner under the Colonial Government and the Naval Base in question, with its large mixed population, was created a separate Coroner's District. As far as is known this is the first appointment of its kind which has been extended to a naval medical officer and it is therefore considered that an account of the duties involved and experience gained may be of some interest to the reader.

The appointment was made necessary by a series of circumstances which arose as soon as the Second World War ended. When the Japanese occupation of Malaya ceased, a short period of military government was set in force for a long period of reconstruction by the civil government. Much of the immediate work to be done resulted from the setting up which had occurred during the Japanese administration under the Japanese regime. In the sphere of law, order and sanitation, had been much of illegal affairs had been largely in abeyance. To all appearances of the Japanese judiciary would seem to have been subservient to the executive in the days of the Kempai Tai. On the cessation of the terms of government, even in a British dependency, it should that all attempts to legal authorities should be brought up to date, an immediate and [illegible]

was not [illegible] Am[illegible] inquiries

The [illegible] was [illegible] the local [illegible] death reported to the [illegible] his whole time [illegible] under the Colonial Government. The [illegible] ordered a post mortem [illegible] to be performed after [illegible] burial. In a tropical [illegible] there can be nothing dilatory in [illegible] methods and the [illegible] date procedure is [illegible] as possible [illegible] the medical findings [illegible] Thus his first [illegible] order a [illegible] of death and the [illegible] could take place in [illegible] the civil and sanitary [illegible] tropical climate. It will be seen that the coroner is not [illegible] with the various factors which brought about the cause of death. This is a matter to be established by the evidence forthcoming at the subsequent inquest.

The system outlined was also applicable in the case of unnatural deaths occurring in the Naval Base area. The body would be taken many miles to the civil mortuary, would come within the jurisdiction of the local coroner and after a post mortem examination would be handed back to the Service authorities for burial.

At the beginning of 1946 the local coroner, who worked single handed, found himself faced with a task of the greatest magnitude. In the first place he had to arrange official inquests on many deaths which had occurred where known during the Japanese occupation. There were also other inquests which had been left over at the time of the invasion of Malaya as well as the vast number of deaths caused by enemy action. Somehow a verdict had to be delivered in every case. In addition the post war era showed a high mortality among a badly undernourished Asiatic population. This meant still more coroner's inquests and further additions resulted from such subsidiary incidents as the execution of war criminals which necessitated a coroner's presence. A situation was gradually reached where the local coroner found himself eighteen months in arrear with his inquests and with many new deaths demanding inquiry taking place each day. In the latter cases post mortem examinations and burials were still effected as quickly as possible but the inquest had to take its place so to speak at the bottom of the roster. This meant that the official inquest could not be held until many weeks or even months after the body had been buried.

This state of affairs had been gradually affecting the official attitude towards unnatural deaths from the Naval Base.

But a time arrived when the local coroner was unable to permit burial as rapidly as in the past. There was congestion and delay in the overworked civil mortuary and the result was that a body could not be released for burial sometimes for several days. It will at once be realized what this delay meant in a tropical climate, particularly when it is remembered that a body recovered from the sea, for example, was possibly already starting to decompose when first discovered.

[illegible]

[illegible] such occasions

The naval authorities promptly took steps to remedy the defects in the existing system. The immediate construction of a large number of coffins was effected in accordance with the specifications laid down in King's Regulations & Admiralty Instructions. This solved one problem. But the delay created by the increasing slowness of coroner's proceedings was something which could only be solved by the introduction of new legislation.

After exploring several channels with no result it became obvious that by far the best manner would be to relieve the local coroner of the burden of unnatural deaths from the Naval Base area. The coroner himself was only too anxious for this to be done and accordingly the naval authorities proposed to the Colonial Government that an additional coroner might be appointed for the Naval Base area and that the area itself might be created a separate Coroner's District. It was pointed out that not only would this obviate the necessity of transporting bodies a considerable distance prior to burial but would also relieve the local coroner of the work with which he was burdened in our time to furnish the Naval Base with its large Asiatic population. It was mentioned that no question of expenditure would arise and it was suggested that the Principal Medical Officer of the Naval Base would be the most suitable person to undertake the duties proposed.

The Colonial Government received the suggestion most favourably and on 1st September 1948 a notification appeared in the *Government Gazette* to the effect that for the time being the person lawfully performing the duties of Principal Medical Officer of the Naval Base should be His Majesty's Coroner for the Naval Base area, the latter being automatically created a new and separate Coroner's District.

It must be mentioned at this point in the story that until the appearance of this notification the unfortunate Principal Medical Officer himself had no suspicion that he was to be invested with credentials of such dignity. He suddenly discovered one morning that he was His Majesty's Coroner and though there was no obvious change in consequence in his physical appearance the mental effect could not fail to be disturbing.

Such was the position which now had been brought about. With an excellent motive the Principal Medical Officer had been created His Majesty's Coroner. It was as easy as that and it seemed that the only person who realized that the matter had been undertaken all too lightly was the Principal Medical Officer himself.

In order to arrive at an understanding of the difficulties attached to the appointment of coroner it is of value first of all to study some of the historical features of this ancient function.

The name coroner is derived from the Latin "*Custos placitorum coronae*" or "Keeper of the King's pleas". The origin of the office is lost in obscurity. In mediæval times his judicial authority extended to inquiry into the cause

death the forfeiture of lands and goods the disposal of treasure trove wrecks of the sea the escape of murderers and the declaration of outlawries He had administerial authority by virtue of which he executed the King's Writs in place of the Sheriff and summoned a jury to assess compensation in cases where the Sheriff's land was compulsorily taken for public purposes

Nowadays a coroner has authority to inquire into the circumstances of death to deal with treasure trove to execute writs in place of the Sheriff and in the City of London to hold inquests into non fatal fires

The office of coroner exists in England Wales Ireland the Dominions and Colonies and the United States of America In Scotland the comparable duties are performed by the Procurator Fiscal

Coroners are of three kinds coroners *ex officio* franchise coroners and county and borough coroners Coroners *ex officio* include the Lord Chief Justice and all the Judges of the High Court Their jurisdiction is purely personal and there is no instance of such a judge having ever held an inquest Franchise coroners include the coroner of the King's Household the coroner of the Duchy of Lancaster and coroners appointed for a town corporate a manor university Liberty and Lordship The jurisdiction of a franchise coroner is confined to the particular precinct of his appointment Thus the coroner of the King's Household must reside in one of the King's palaces or other such convenient place He has exclusive jurisdiction in respect of inquests on persons whose bodies are lying within any of the King's Palaces its courts gardens and other places within the curtilage of the palace but not further By the operation of modern legislation franchise coronerships with a few exceptions will cease to exist in course of time though at present there are many franchise coroners in office But it is not intended to abolish the coronerships of the King's household the City of London in the Isles of Scilly On the other hand the coronerships of the Cinque Ports the University of Oxford and of the Dean and Chapter of Westminster have already been extinguished County and borough coroners form the type of coronership with which the general public is most commonly acquainted

Prior to 1926 there had been no definition of the qualifications necessary for the office of coroner By the Statute of Merton 1236 all coroners were knights on a basis of land ownership The Statute of Westminster the First, 1275 directed that none but lawful most wise and discreet knights should be chosen for the office By 1461 there would seem to have been some lack of knights in the nobility and it was enacted by Statute that coroners should be chosen of the most meet and lawful people that shall be found in the counties On long standing qualification was based on the desirability that a coroner should continue to be a person of substance in the county and this was had even so recently as 1887 in Section 12 of the Coroners Act of that year

The modern rules are enacted in the Coroners (Amendment) Act 1926 Now no person is qualified to be appointed a coroner during or in assistant capacity coroner unless he is a barrister solicitor or legally qualified medical practitioner of not less than five years standing in his profession The term legally qualified medical practitioner means a person registered under the Medical Act of 1858

and not a medical practitioner with a legal qualification. Nevertheless the modern tendency is to employ a person both medically and legally qualified whenever possible.

In addition to these academic requirements the additional qualities which are desirable in a coroner were enumerated as long ago as the seventeenth century by Lord Chief Justice Coke. He should be *probus homo legalis homo* of sufficient knowledge and understanding and good ability and power to execute his office according to his knowledge and of diligence and attendance for the due execution of his office.

These last three are of the utmost importance at the present time for they necessitate a coroner to be always available by day and night and to reside not farther than two miles beyond the outer boundary of his district.

The office of coroner is not of itself incompatible with some other official or professional activity; but within defined limitations a breach of which would constitute complete and immediate disqualification for holding the office. Some disqualifications are statutory and a coroner cannot also perform the function of sheriff, mayor, alderman, councillor of a municipal borough.

Furthermore by section ten of the Coroners Act 1887 re-enacted by the Act of 1926 the professional activity of a coroner is seriously curtailed. A coroner who is a medical man is barred as are his partners and assistants from advising professionally in connexion with the death of any person which is likely to form the subject of an inquiry before himself as coroner.

Also a coroner or his deputy or assistant deputy is not permitted to perform any post mortem or special examination in respect of a body upon which he is likely to hold an inquest. The words "special examination" bear that wide interpretation which is so frequently found in legal phraseology.

It may be accepted that the rules and disqualifications set out are equally applied to Colonial and Dominion coroners.

A study of this brief historical outline will explain that it was only natural that the Principal Medical Officer appointed as coroner of a Naval Base area should feel some mental apprehension about undertaking the responsibilities involved. In addition study of the Court Procedure and the Criminal Code of the Laws of the Straits Settlements showed that such an appointment was one which could not be safely embarked upon without clarification of various circumstances which might arise later and certainly not without some preliminary training in local legal matters.

In the first place the Principal Medical Officer of the large Naval Base in question was holding a comprehensive appointment being also in charge of a Royal Naval Sick Quarters, an Asiatic Hospital and the medical arrangements of H.M. Dockyard. The nature of his duties was such that he was personally responsible for all medical matters within the Naval Base area and no matter what duties he might delegate to subordinate medical officers the ultimate medical responsibility remained with him. Again as the most experienced medical officer it was frequently his duty to make decisions and to arbitrate for the juniors who were bound to be influenced and guided by his clinical opinion. It therefore followed that a junior medical officer in accordance with

service principles when signing a burial or death certificate or giving evidence at an inquiry was virtually acting on behalf of his Principal Medical Officer.

How then was this relationship likely to be affected by the appointment of the Principal Medical Officer to act as His Majesty's Coroner inside his own Naval Base? The implications were studied by applying the service requirements of a Principal Medical Officer and the legal rules for a coroner's conduct of his office to a hypothetical case which might have to be dealt with. It was assumed that a man had been knocked down by a lorry inside the Naval Base area and afterwards admitted to the Royal Naval Sick Quarters in a serious condition. Was such a case liable to affect the Principal Medical Officer in carrying out his duty to the patient, the Service and the State as coroner? In short, could the functions coexist?

It was at once obvious that the junior medical officer in charge of the case, once faced with a fatal complication, would call for his Principal Medical Officer to give a second opinion. Should the patient die, the Principal Medical Officer would have to report the death officially. It then seemed that he must also report the death to himself as coroner. Also as coroner he would instruct the Principal Medical Officer, that is himself, to arrange a post mortem examination. The post mortem would be carried out by a junior medical officer but should he find a difficulty in arriving at the cause of death he would quite rightly appeal again to his Principal Medical Officer for assistance and advice. Thus it might happen that the cause of death would be established, a post mortem report drawn up and a death certificate completed on findings possibly made by the Principal Medical Officer himself.

At this point the Principal Medical Officer as coroner would have to release the body for burial and order an inquest at which as coroner he would hear from his junior medical officer medical evidence which he might actually have furnished himself.

It was realized too that the difficulties of procedure would be even greater should a patient die on the operating table in the Asiatic Hospital and become the subject of an inquest at which the Principal Medical Officer of the hospital was acting as His Majesty's Coroner.

Applying such circumstances to the United Kingdom, it was asked, would it be ethically or legally consistent with his position for the Surgeon Rear Admiral of the Royal Naval Hospital Haslar to act as coroner in the case of a death occurring in his own hospital?

It was not intended to reduce the potential circumstances to a degree of absurdity, but it did seem possible, nevertheless, for exigencies to result in a situation arising in which the Principal Medical Officer would be called upon personally to treat a patient, certify death, order a post mortem examination, order burial, hold an inquest and give evidence as an expert medical witness of himself as His Majesty's coroner. It was obvious therefore that in order to perform the duties of coroner in an ethical manner the Principal Medical Officer would feel bound to disassociate himself officially from any case either before or after death which would be likely to become the subject of a coroner's inquest. He could in fact no longer be available in an advisory capacity a

[illegible]

The [illegible] confusion [illegible] as [illegible] be considered by virtue of [illegible] officer. This was [illegible] seemed that the [illegible] capacity [illegible] Naval [illegible] duties to the State [illegible] Authority and the State. We [illegible]

Then again as His Majesty's Officer the officer [illegible] which he must exercise by virtue of his office. We [illegible] acknowledge this [illegible]

Finally, a matter of [illegible] importance was the [illegible] office the officer [illegible] to His Majesty's Officer [illegible] certain statutory privileges as well as various types [illegible] made by Act of Parliament [illegible] from judicial process. We [illegible]

These privileges and immunities are essential in order [illegible] carry out his duties efficiently and without fear of [illegible] repercussions.

An instance arose which while engaged in his duties [illegible] upon a civil process. He also enjoys those powers [illegible] to a Justice of the Peace. Likewise he has the power [illegible] to attend the coroner's court. He can also [illegible]

His immunity is that of the judge of an Court of Record. [illegible] has against a charge for anything done by him in the [illegible] judicial function provided he acts within his jurisdiction. In the [illegible] Coleridge J. stated in his summing up a [illegible] judgment in bona fide and without reasonable or probable [illegible] which not of his court could be [illegible] such on the person.

Hence the result is that in the exercise of his function in the Court of [illegible] the Crown and therefore into the proceeding in his [illegible] the officer taking up the [illegible] which [illegible] this which was [illegible] realized the powers and privileges which had been given to the officer in them and so. Would a senior instructing officer be [illegible] himself entitled to inspect the carriers [illegible] he would be [illegible] that he was merely a [illegible] Would he not be [illegible] that he must have if the [illegible] he cleared? In fact during the [illegible] of the [illegible] more of the [illegible] that his Commanding Officer [illegible] to make [illegible] and [illegible] charge [illegible] the coroner's verdict. The [illegible] could not help but [illegible] all right with the Common Law might not be all right with the Service and

though he aimed at being a satisfactory State Official as a family man he could not help thinking of his confidential report

In this unhappy frame of mind the Principal Medical Officer voiced the difficulties which he foresaw in implementing his new function of coroner and it is to the credit of all concerned that his position was greatly clarified with the assistance of the local Governor the Service Authorities and the Police Authorities It was arranged that where the treatment of a naval doctor might have contributed to the death of a patient the Naval Base Coroner should stand aloof and the case should be investigated by the Colonial Coroner under the old system As regards the other objections it was considered that there should be no cause for alarm and despondency provided the terms of the new appointment were met and implemented in the spirit which had been originally intended In other words the new coroner was instructed to perform his functions on a basis of personal integrity There was a tacit agreement that when acting as coroner the powers and privileges of the Principal Medical Officer would be observed by his Service Seniors in an atmosphere of mutual trust At the same time it is worthy of note that there was never a satisfactory answer to the relationship of the Principal Medical Officer when a coroner's inquest and a Service Board of Inquiry were held concerning the same death Here it is obvious that the officer would be required to preside over one on behalf of the State and might be required as Principal Medical Officer to be a member of the other or to attend it as an expert witness on behalf of the Service In practice the situation was one which never arose possibly because it was tactfully avoided

Officially the appointment was confirmed and the Principal Medical Officer passed through the ceremonies attendant on taking up his new office The first step was to make a Declaration of Office which was carried out by taking an oath before the Chief Justice of the Colony and solemnly sincerely and truly declaring and affirming to well and truly serve our Sovereign Lord the King and his liege people in the office of coroner for the Naval Base area and diligently and truly to do everything appertaining to the office after the best of his power for the doing of right and for the good of the inhabitants within the said area This was followed by the signing of an impressive parchment after which the officer was provided with a copy of the Penal Code which later in five impressive volumes lent great dignity to the book shelves in the sick bay!

The Officer Commanding R N Police now took the new and terrified coroner under his wing A room was set aside in the Police Station as the official Coroner's Court and a rubber stamp prevailed the latter bearing the Royal Arms and the words H M Coroner An Inspector of Police with long Asiatic experience was nominated as Coroner's Officer whose assistance proved invaluable during the whole term of office

Among other preparations a Panel of Jurymen was prepared from the inhabitants of the Naval Base area Naturally only those names were empanelled of persons known to be literate In ordering the attendance of a jury the system adopted was to nominate five members of different nationalities

all with [illegible] Each jury [illegible] section of the local community and consisted [illegible] Chinese one Cingalese one Malayan with a European [illegible]

A panel of official interpreters was also drawn up and methods were studied of arriving at a satisfactory system of receiving the sworn testimony of Asiatic witnesses delivered through the mouths of Asiatic interpreters following the taking of an oath which would be binding in the case of each of the many religions involved

At this point the Principal Medical Officer set out to absorb the Penal Code and to familiarize himself with the many official forms and documents connected with his new office Then having satisfied his uncontrollable school boy impulse to try out his new rubber stamp on his official notepaper he felt ready to embark on his Crown Duties albeit with apprehension and some disgust

He did not have to wait long and forty eight hours later the new coroner was called from his bath at 0800 to receive a telephone message from the police that the body of a Japanese soldier had been observed floating face downwards in the sea between the Naval Base and the mainland The new coroner promptly shed that dignity associated with Crown Office and wearing a pair of shorts and little else was the first to arrive at the neighbouring shoreside His feelings were those of a newly qualified house surgeon being called to his first case From now onwards he began to make mistakes at three minute intervals for the next few hours

The body was clearly visible floating in tidal water midway between the shore of the Naval Base and the shore of the Native State on the other side of the Straits The local currents soon began to propel the body towards the opposite bank whereupon the coroner determined not to be robbed of his first case instructed the R N Police to go and fetch it Two inspectors set off in a small boat and rowed out to the vicinity of the body and after some delay managed to secure a line to it They then rowed back to the shore towing the body between them on what appeared to be an unnecessary length of tow As the body neared the shore the reason for this soon became apparent and it was noted that each inspector had a handkerchief tied around his face The body was towed to the edge of the shore and was in an advanced stage of decomposition so much so in fact that all the spectators fled from the vicinity followed by the coroner after giving rapid instructions as to further procedure

The coroner now informed the local commanding officer of the Japanese Surrendered Personnel that the body of one of their members had been found in order that they might make the necessary arrangements for such a repatriation in accordance with their national custom Meanwhile on the ridge of the shore a tussle was in progress between the R N Police and members of the Police Force of the local Native State who had arrived on the scene and were claiming that the body would have made its way into their area if allowed to travel under its own power The matter was settled in a variety of languages and shall ensued until the coroner opened his first inquest at 1400 the following day This first inquest was a tragedy but fortunately it was held without a jury

and no members of the public were present to witness the coroner's obvious lack of experience. The Japanese authorities denied that any of their members were missing, and this slight misunderstanding was rectified when the coroner was informed with all due respect by one of his junior medical officers that far from being the body of a young Japanese, the corpse recovered was that of an Indian in the seventh decade. The coroner took this blow manfully and was only too willing to sign an official verdict prepared for him in advance by his sympathetic Coroner's Officer. On the point of signing, however, he read the words "accidental death by drowning." As there was no evidence of any kind to suggest how the body came to be in the water, the verdict prepared by the Coroner's Officer was altered to "found drowned," and the coroner perhaps began to develop from that moment the rudiments of common sense so necessary in performing his office.

From the first inquest the new coroner discovered many elementary facts which he should have known, but the remainder of his term of office he did not realize, for instance, that a coroner must postmortem or not every unexplained or lackadaisical which coupled with lack of plans in the enemies' camp proved a most arduous task in the heat of day in the tropics. The coroner later found that his exacerbations of prickly heat have a direct relationship to his inquests.

Other elementary discoveries were those which it is assumed have come the way of all immature coroners. Never be bullied by the police, is a maxim which the Indian may always careful to observe, without in any way disregarding the rights of police authorities as a whole. It was also realized that a body must not of necessity be seen in the spot as long as it is seen as soon as possible after. Also when a body is viewed it should be viewed carefully and probably from in front. Finally, it is not usual for the coroner to stand a body from another coroner's district.

The lessons learned were borne in mind and were augmented by yet other lessons during the second inquest. This was on the body of an Asiatic who was the victim of a road accident. The accident occurred outside the Naval Base area, but the man in the Insulet. There was some initial difficulty with the local Colonial Police who demanded that the body should be sent within the jurisdiction of the Local Colonial Coroner. It transpired that the local Colonial Police was the only organization which had not been informed that the Naval Base area was in a separate Coroner's District. At this inquest the coroner was informed immediately by a police representative that a person had been charged with manslaughter in respect of the death on which the inquest was being held. The coroner again displayed his ignorance and the police had to remind him of the Statutory Rule which states that when a coroner is informed that such person has been charged with the murder or manslaughter of a relative of the deceased, he must in absence of reason to the contrary adjourn the inquest until after the conclusion of the criminal proceedings. At a later date the coroner may resume the adjourned inquest and complete it, but he is right and must not be inconsistent with the determination of guilt in the result of criminal proceedings. The object of this rule of course is to

[illegible]

[illegible] not as Principal Medical Officer.

By the time of holding his next [illegible] post of Principal Medical Officer he had taken the opportunity to discuss [illegible] with the Criminal [illegible] and the Chief of Police and felt altogether [illegible] equipped mentally [illegible] with his coroner's duties. This was just as well for the third inquest was one of absorbing medico legal interest.

It concerned the death of an [illegible] old Chinese [illegible] the son of a [illegible] labourer. This child was out on a [illegible] about [illegible] one afternoon but by 1.00 had not returned home. His mother searched the neighbourhood and heard that her son had been seen with [illegible] children on an open fresh water pool normally used for [illegible] purposes [illegible] which local children were accustomed to bathe. This pool was [illegible] yards square and of a maximum depth of about 6 feet and was situated at the mouth of a [illegible] a few yards from and in full view of a popular [illegible] road. The agitated Mother went to the pool and found nobody there but she found her son's clothing on the grass. She then appealed to passers-by for help and eventually a Sikh dived into the pool and after a short [illegible] recovered the body of the child from the bottom. The facts were promptly reported to the Police and the Principal Medical Officer as coroner.

Now there is no doubt that had the [illegible] system still prevailed the child's body would have been handed over to the [illegible] accidental drowning. This verdict would probably have been returned at a later date and nothing further heard of the matter. Such [illegible] common enough in a tropical colony interlaced with pools and [illegible] and what could be more natural than to assume automatically that the child had gone bathing and been accidentally drowned? The police regarded this as the explanation and took no further steps. The circumstances seem [illegible] that the coroner himself was in two minds whether to order a post mortem examination or not. The true reason why he did order a post mortem was that twelve months previously in India he had himself performed post mortem examinations on two bodies recovered from the sea. In each case it had been assumed that the man had died of drowning but the post mortem findings did not confirm this but merely showed that whatever had been the cause of death drowning had certainly played no part. The Principal Medical Officer [illegible] reason therefore to be suspicious of supposed death by drowning in [illegible].

The inquest on this case was held before a [illegible] jury [illegible] Asiatic members and a European foreman. The proceedings lasted [illegible] hours and proved instructive not only to the public but particularly to the Police Authorities.

The junior medical officer who performed the post mortem examination was a Scot, Glasgow trained and possessing that shrewdness and reliability which make his countrymen such admirable expert witnesses in a court of law.

He [illegible] no sign that the child had [illegible] during life. He had [illegible] death at all. He had however some [illegible] the perineal region and decided [illegible] further. He then [illegible] and bimanual and by careful dissection was able to reveal an antemortem tear on the interior wall of the anal canal extending upwards a distance of about 3½ inches from the anal verge. The injury was consistent with the forcible insertion of some object into the anal canal but no such object was ever discovered around or in the pail to which the body had been found. The doctor did not consider that the injury itself could have caused death either by hæmorrhage or by its magnitude. Nevertheless quoting the authorities with some skill he was able to illustrate how the sudden stretching of the anal sphincter was capable of producing a high degree of shock in a susceptible individual and that in such a case death from syncope would be possible. On being invited to put forward suggestions as to the possible cause of the child's injury he advanced solemn as not unlikely on the findings but gave no opinion as to whether the child would have been a willing or unwilling victim of such assault. There was no further medical evidence forthcoming though the doctor was closely questioned by the coroner individual members of the jury and an inspector holding a watching brief on behalf of the police.

It was in the course of this inquest that it was revealed how formidable a trial it was to examine an illiterate Asiatic witness and how necessary it was to be kindly painstaking patient and tolerant in order to obtain evidence likely to be of value.

The immediate reaction of the uneducated and too often the educated Asiatic on being called to give evidence is that he is caught up in the Law. He at once searches his own conscience which unfortunately in a post war black market atmosphere is not always as clean as it might be. He tends to be completely disinterested in the matter under investigation and regards the whole proceedings as directed against him personally. Also he has a chronic inferiority complex towards the police and is prone to identify a policeman with punishment rather than to operation. By the time he gets into the witness box therefore he is probably shaking with fear and in any case is determined to say nothing which is likely to incriminate himself. The [illegible] of the Chinese and the Malay is to please wherever possible and he [illegible] willing to tell a story which he thinks is the one his interrogator [illegible] him. This may or may not be true but he is perfectly willing to [illegible] that he is white if he gets it into his head that that is the answer likely to please his interrogator. On the other hand the Cingalese tends to deny [illegible] of anything at all while the Indian particularly the Southern [illegible] has a habit of remaining infuriatingly dumb to all questioning. At [illegible] an Eastern court of law can become the noisiest place on Earth with private arguments going on between witnesses and interpreters in a tongue which no one else can understand. The reader will also appreciate the difficulty of explaining the sense of a question to an interpreter in English, which he must translate perhaps in Urdu to another interpreter who in turn must translate it in say Malayalam to the witness. It is little wonder that

[illegible] the whole [illegible] In the [illegible] removed from [illegible] the issues came up for interrogation and evidence [illegible] only be obtained with the greatest difficulty

The summing up in this particular inquest was the most difficult task which the Principal Medical Officer had to perform during his whole term of office as coroner for it was most necessary as the issues before the jury had become obscured by the many questions asked that they should be prevented from being affected by matters extraneous to their decision It was first a duty to explain to the jury their duties and powers according to law and to warn them from attempting to consider or express opinions upon matters outside their province At the same time they had to be reminded that as to relevant matters of fact their opinion was supreme and that they should act in that regard according to their oaths and should give a true verdict without fear or favour affection or ill will according to the evidence and to the best of their skill and knowledge

In the case in question a child's body had been found in water apparently drowned But medical evidence had proved that this was not so but had suggested a different cause of death The jury were directed to reject or accept this suggestion as they thought fit

Should they accept the suggestion they were directed next to determine on evidence the circumstances which had brought about the cause of death which they had accepted

They were further directed that should they consider that the circumstances were brought about by the illegal act of another person that person might be guilty of murder But in this connexion they were reminded that in such a case the illegal act must be one which might reasonably be expected to cause death

After an absence of thirty minutes the jury returned a unanimous verdict of culpable homicide not amounting to murder

Other inquests revealed little worthy of being recorded here although it was observed with interest that the Asiatic suffering from ill health seems likely to solve things by committing suicide The methods employed included drowning self stabbing with hanging the most common

Of the coroner's subsidiary duties there is little of interest to add though early one morning he was called upon to attend the execution of three Japanese war criminals of senior rank This experience was unique for a naval medical officer but of too morbid an interest to bear relating in detail in this present paper In the light of modern legislation however it is perhaps of interest to note the conclusions reached as a result of this unpleasant task The first is that whether desirable or not execution by judicial hanging is most merciful swift and clean as carried out under the British system Secondly the Japanese at his execution is not really a brave man He may boost his morale at the last moment by whipping himself into an elevated state of hysterical and fanatical grandeur which he reveals by the hoarseness of his high pitched shrieks of loyalty to his Emperor He possesses none of that silent dignity

[illegible] undoubtedly he displeased the most humble [illegible] similar [illegible]

[illegible] fatal effect [illegible] communicated to the [illegible] violence [illegible] by anonymous letter The coroner here described became accustomed to this form of torture and soon learned to ignore it Nevertheless he was a little disturbed after a short but incapacitating illness of forty eight hours which he had attributed to bad milk to learn that his symptoms were consistent with poisoning by jasmine a not uncommon habit in the East Whether this was accidental a correct diagnosis or connected with his judicial office the Principal Medical Officer never knew but it certainly made him think

The first Principal Medical Officer to hold the office of coroner in accordance with the terms of the appointment made by the Colonial Governor performed the function for exactly twelve months at the end of which he handed over the duty to his successor The latter officer also had no knowledge of this medico legal aspect of his appointment until told on arrival and his dismay caused great amusement among his brother officers and in particular to the retiring coroner In retrospect there is no doubt that in spite of the fact that this medico legal appointment was undertaken rather under protest it worked successfully and fulfilled many useful purposes both immediate and remote It is considered that the results which flowed from the appointment were all on the credit side and exerted a valuable influence in many ways inside the Naval Base area

From the Service viewpoint rapid burial in the case of unnatural death was achieved Also such deaths were investigated on the spot as soon as possible and with a thoroughness which it would not have been possible to achieve in as short a time under the old system

A great burden was removed from the shoulders of the overworked Colonial Coroner and the fact that the Naval Base proved itself capable of conducting its own coroner's inquests in a manner satisfactory to the local legal requirements was something for which the Colonial Government was over grateful

From the viewpoint of the Royal Naval Police the fact that the Naval Base was a recognized Coroner's District was a great advantage In transport and man power alone economies were effected as under the old system every unnatural death inside the area meant that at least one and probably more police officers had to remove the body to the civil mortuary and attend the subsequent inquest at the Colonial Coroner's Court Besides this the naval police authorities could but admit that the prompt attendance of their own coroner following the discovery of an unnatural death and the fact that an inquest was held on their own premises very soon afterwards had a stimulating effect on police officers in general particularly Asiatic police officers There was less delay in collecting evidence and less temptation to take things for granted At this time the colony in question was being subjected to an alarming post war wave of crime and it is more than likely that the fact that the local Asiatic inhabitants of the Naval Base realized there was a coroner in their

whilst [illegible] to the police [illegible] have [illegible] serious [illegible]

An interesting [illegible] resulted from the [illegible] the victim [illegible] It will be realized [illegible] to serve on a jury [illegible] Admiralty employee. In [illegible] became [illegible] his responsibilities and duties as a citizen [illegible] both he, his family and his friends became civic minded.

From time to time the jury felt impelled to add a rider to its verdict, not through any [illegible] destructive agitation but in order to avoid a recurrence of the circumstances which had caused a death of which they had considered evidence. Such riders were forwarded to the Service authorities, drawing attention perhaps to some small defect such as [illegible], and the authorities were thus enabled to remedy the defect which probably was not realized before. By this means attention was drawn to such things as dangerous buildings, faulty electric cables, unfenced ponds, and street lighting deficiencies.

An interesting sideline was the effect on the local Japanese Surrendered Personnel. An occasional Japanese was involved in a fatal accident and his body became the subject of a coroner's inquest the same as any other body. The fact that in such a case a meticulous inquiry should be held by the British created a great impression among the Japanese, who themselves would have regarded the death of a prisoner of war as of little account.

To junior medical officers the appointment granted a welcome opportunity to acquire experience in post mortem examinations, in assessing disease, tropical pathology in its relation to death, and in giving expert evidence in a court of law. Also the opportunity of dining with the coroner and discussing the case in retrospect is a privilege which does not normally come the way of a medical practitioner.

From a personal point of view the appointment gives a unique opportunity of acquiring medico-legal experience which can have come the way of few naval medical officers. Finally, it must be recorded that the duties could not have been performed adequately without the constant support of the Service Authorities, the Colonial Coroner, and in particular the Chief of Naval Police, whose guidance in matters of local administration in the Far East was constantly forthcoming.

ADVANCES IN THE TREATMENT OF VENEREAL DISEASES DURING THE WAR 1939-1945

BY

Surgeon Commander J. G. MAGUIRE, R.N.

INTRODUCTION

MANY important advances in the treatment of disease took place during the war years, but few were more remarkable or had more profound effects than the introduction of penicillin in the treatment of venereal disease. Until

recently gonorrhœa was the most troublesome disease in the Navy and it was not unusual for patients to be under treatment for three six or nine months without certainty of cure Disabling complications such as epididymitis prostatitis arthritis stricture &c were all too common and the loss of man power was enormous The fact that it is now possible to cure gonorrhœa with one injection of an antibiotic is the greatest advance in the treatment of venereal disease since arsenic was found to be effective in syphilis Advances in the treatment of syphilis are more difficult to assess Spirochætes disappear rapidly from primary lesions and serum reactions are favourably affected with penicillin therapy but many years of clinical and serological observation are necessary before a final decision on the efficacy of penicillin can be precisely defined It will be advantageous to review the progress of events from the pre sulphonamide era and to consider each disease separately

Gonorrhœa

The treatment of gonorrhœa in the Navy in the years preceding sulphonamide therapy consisted chiefly of urethrovesical irrigations The disease took months to cure and complications were of frequent occurrence The introduction of sulphanilamide in 1937 revolutionized the treatment of gonorrhœa and this drug and its derivatives cured 80 per cent to 90 per cent of all cases without the aid of ancillary methods Unfortunately it was soon observed that an increasing number of strains of organisms became resistant to the drug and drug resistance in Italy was reported by Campbell (1944) to be as high as 70 per cent Many cases of drug resistance reacted favourably to fever therapy introduced by Burkness (1940)

Penicillin became available to the Services in 1944 and the whole picture changed Gonococci were found to be particularly sensitive to the antibiotic swollen and grotesque gland farms being seen soon after one intramuscular or subcutaneous injection of an aqueous solution containing 20 000 Oxford units After a second injection three hours later most of the organisms had disappeared completely Sulphonamide resistant infections responded equally well Numerous experiments were carried out and many schedules of treatment tried finally eventually the scheme adopted in the Navy consisted of five injections each containing 30 000 Oxford units of sodium penicillin injected intramuscularly at three hourly intervals making a total of 150 000 Oxford units This scheme of treatment was found to meet with marked success Relapses undoubtedly occurred and treatment appeared to be less satisfactory in hot climates (possibly due to unsatisfactory storage) but the percentage of relapses was small and a second treatment in most cases effected a cure A mucopurulent discharge frequently persisted for a few days (possibly due to resolution processes in gonococcal lesions) but gradually subsided and further treatment was rarely necessary No resistant strains have yet developed Many medical officers made the mistake of continuing penicillin therapy for persistent secretions which were not due to the gonococcus and in some cases large doses up to one or two mega units were given and reported (quite wrongly) as failures With prompt penicillin therapy complications have become ex

tremely rare. It is impossible to estimate accurately the percentage of failures in the Navy as it was not possible to follow up many cases under war conditions but personal experience in the three main home ports showed a very small relapse rate after one treatment few failures after two treatments no resistant strains and extremely few complications. An apparent cure rate of approximately 95 per cent was obtained.

Further experiments took place notably attempts to find a vehicle which delayed the elimination of penicillin from the blood stream. Success was obtained by Surgeon Captain Lloyd Jones at the Navy Wing Queen Alexandra Hospital Cosham with a solution containing penicillin magnesium monohydrate and arachis oil. With this solution gonorrhœa was treated and cured in almost as high a percentage of cases with only one injection containing 300 000 Oxford units. This solution was unstable and had to be made up every few days but a stable oily solution was discovered by Romansky and Rittman in America. It contained calcium penicillin peanut oil and beeswax the formula of which is now the basis of all oily solutions being manufactured. One injection containing 250 000 Oxford units cures 90 per cent to 97 per cent non complicated gonococcal urethritis. In the treatment of any complications which may occur and which are definitely due to the gonococcus penicillin is of the greatest value. Adjuvant treatment consisting of chemotherapy artificial fever urethrovesical irrigations and injections of organic gold solutions are only necessary in the treatment of a concomitantly acquired non gonococcal urethritis and its complications.

Syphilis

The introduction of arsenic in 1910 was the beginning of a new era in the treatment of syphilis and its value supplemented by the heavy metals was well established long before the 1939–45 War.

Certain minimal courses either by continuous alternating arsenic and bismuth or by interrupted combined arsenic and bismuth were recommended by the League of Nations Committee in 1931. The results of regular treatment by either method were satisfactory but lack of co operation by the patient (failure to attend regularly and failure to complete the course) was the main cause of relapse and the development of latent infection.

Jaundice

Neoarsphenamine was a known hepatotoxic and a small percentage of cases receiving this form of treatment developed toxic jaundice. There was a sharp rise in the incidence of jaundice during the early years of the war indeed in 1940 it reached in some clinics the alarming rate of 10 per cent. The aetiology of post arsphenamine jaundice was discussed by Beattie and Marshall (1944) who emphasized that there were two types of hepatitis occurring during arsenical therapy an early type usually mild appearing within the first two weeks and a late type which appeared at a variable time usually between the twelfth and seventeenth weeks of treatment. They pointed out that if the organic arsenicals were solely responsible for post arsphenamine

jaundice the incidence [illegible] fairly constant from year to year, but the cause of the [illegible] MacCallum in 1943 [illegible] infective factor due to inoculation of infective material contained in [illegible] sterilized syringes and experiments carried out by Beattie and Mitchell supported this theory. Hepatitis [illegible] personal immunization also supported this theory and reported that [illegible] jaundice cases in patients [illegible] separate syringes [illegible] used for each individual case. MacCallum and Bauer (1944) [illegible] homologous serum jaundice and reported [illegible] experiments with human volunteers. These workers showed that infection from a presumed case of homologous serum jaundice was interogenic on the seventh day after onset of jaundice but not fifty nine and one hundred and thirty four days later. (ii) [illegible] vaccine containing pooled human serum obtained from a blood bank produced jaundice in 30 per cent to 40 per cent of those inoculated with it. [illegible] of the same serum by itself produced hepatitis and jaundice in a similar percentage of volunteers. (iii) the [illegible] agent survived [illegible] for nine hours and was still active after storage for [illegible] months in the frozen state. From these investigations it appears probable that although syphilis and the arsenicals do in themselves cause liver damage the high incidence of jaundice in the Services in 1940 was due to homologous serum jaundice transmitted by inefficient sterilization of syringes and needles.

Arsenoxide

During the high incidence of jaundice which was at that time thought to be due solely to the toxic action of neoarsphenamine the preparation of arsenoxide known as mapharsen replaced neoarsphenamine as the drug of choice for the Navy in 1942. Opinions in this country differ on the therapeutic value of arsenoxide although it was used extensively and reported on favourably in the United States of America. The scheme of treatment adopted in the U.S. Navy and Army is as follows:

Week 1		Bismuth salicylate 0·2 gram once weekly (8 doses)
2		
3		
4		
5	Mapharsen [illegible]	
6	[illegible]	
7		
8		Omit usual holidays
9		
10		
11		
12		
13	[illegible]	Bismuth salicylate 0·2 gram once weekly (8 doses)
14		
15		
16		

[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
21	[illegible]
22	[illegible]
23	[illegible]
14	[illegible]
25	[illegible]
26	[illegible]

[illegible] Royal Navy [illegible] the [illegible] and the [illegible] of the drug, [illegible] courses of [illegible] [illegible] treatment consisting [illegible] injections [illegible] oxide and [illegible] intravenous drip therapy [illegible] tried [illegible] method [illegible] of [illegible] strains risk and could only be given [illegible] in properly equipped clinics. [illegible] [illegible] eighty the which occurred in [illegible] [illegible] terminated fatally in approximately [illegible] per cent of [illegible]

Penicillin

Further trials and research [illegible] that penicillin had outstanding therapeutic properties. This [illegible] 1942 at Oxford but owing to the [illegible] most of the early work on the treatment of syphilis [illegible] United States. It was perhaps unfortunate that penicillin [illegible] antipyretic and pyrogenic at a time when [illegible] If the penicillin had been as good as it was [illegible] needed and which [illegible] from which [illegible] than it did proved [illegible] substance in claiming penicillin as a cure for syphilis [illegible] older and better treatment. The [illegible] which gave immediate excellent results in [illegible] although no one could say if the result would be permanent. [illegible] *Treponema pallidum* in approximately [illegible] effort in the [illegible] and toxic effect [illegible] It can be given in [illegible] doses either intramuscularly intravenously [illegible] or applied locally without undissolved [illegible]

Working on the theory that it [illegible] continuous therapeutic [illegible] of penicillin in the blood stream [illegible] necessary with the sulphonamides [illegible] knowing that penicillin [illegible] eliminated through the kidneys [illegible] hour limits it was decided that three hourly injections would be [illegible] time. Many trials were made with varying doses of sodium penicillin [illegible] aqueous solution and in 1944 a scheme of treatment which proved [illegible] generally adopted throughout the Allied Services. This scheme consisted of three hourly intramuscular injections of 40,000 Oxford units of sodium penicillin in aqueous solution day

and night for sixty injections—a total of 2 4 mega units in seven and a half days The treatment necessitated admission to hospital for all cases of syphilis and to ensure the necessary serological follow up all naval patients were kept in shore service for at least four months

Surgeon Captain Lloyd Jones R N working at the Navy Wing Queen Alexandra Hospital Cosham did not entirely agree with the theory that it was necessary to keep a constant high level of penicillin in the blood stream and he claimed that by giving single daily doses of 300 000 Oxford units to a total of 2 4 mega units the immediate clinical results were comparable to the results obtained with three hourly injections It was however soon evident that 2 4 mega units given either by three hourly or twenty four hourly injections were not adequate and the dosage was raised to 3 0 mega units for primary and 4 8 mega units for secondary cases Experiments were also taking place with the oily solutions giving one or two injections daily but no definite conclusion had been reached This was the situation when the war ended but it was by no means final Many authorities doubted the wisdom of depending on penicillin alone and already it was becoming more evident that a combination of penicillin arsenic and bismuth should be given A new very valuable non-toxic antibiotic had been found but its exact place in the scheme of treatment of syphilis had not yet been determined

Dangers of Penicillin in the Treatment of Gonorrhœa

It has already been shown that penicillin has a lethal effect on both gonococci and *Treponema pallida* At first this appeared to be a great advantage but in fact it has proved to be a serious disadvantage When both diseases are contracted at the same time a gonococcal urethral discharge will appear within a few days whereas the primary lesion of syphilis rarely becomes visible before three weeks have elapsed The curative dose for gonorrhœa may inhibit for a variable period the growth of *Treponema pallidum* and consequently there is danger of masking the development of the chancre it is also more than probable that many battle casualties were incubating syphilis during penicillin treatment for their wounds In this way it is possible that the onset of syphilis has been masked by penicillin administration to battle casualties and owing to the fact that there was no serological follow up serious complications in later life may be the first signs of disease

Chancroid Lymphogranuloma Inguinale Granuloma Venereum

During the war no real advances have been made in the treatment of chancroid but Hanschall (1948) showed that this local disease responded satisfactorily to the sulphonamides and it is now not a serious problem Neither penicillin nor streptomycin have any beneficial effects on the course of the diseases

Lymphogranuloma inguinale due to a virus also responds favourably to sulphonamide therapy but a two or three weeks course is sometimes necessary

Granuloma venereum in the lesion of which Donovan bodies are readily demonstrated, has recently been shown by Greenblatt to be susceptible to streptomycin

Non-specific Urethritis

[illegible] urethrologists [illegible] all parts of the urethra [illegible] urinary and [illegible] urethrae are taken after thorough cleaning of the meatus. Saprophytic organisms are numerous in these parts and inefficient cleansing often leads to mistaken diagnosis of bacterial urethritis. Abacterial urethritis may be due either to a virus or pleuropneumonia like organisms as has been shown by Harkness and other workers in this field. Infection due to bacteria sometimes react favourably to the sulphonamides or penicillin but there are many failures and there is no known specific for the treatment of abacterial urethritis. Urethrovesical irrigations are helpful in a large number of cases but fever therapy is the most effective treatment.

Penile Warts

Condylomata acuminata are infectious and auto inoculable and are due to a filtrable ultramicroscopic virus only demonstrated by inoculation experiments. A notable advance in treatment was the introduction of podophyllin (25 per cent in mineral oil) by Kaplan (1942). Its application to each individual lesion demands a careful technique as ulceration of the adjacent mucous membrane may occur. Relapses occasionally occur but the treatment has proved to be more successful than any of the older methods.

Scabies

Scabies in adults is often of venereal origin, contagion occurring almost exclusively at night when the warmth of the body favours migration of impregnated female mites. The introduction of benzyl benzoate revolutionized the treatment of this disease and was a real advance on the pre-war treatment with sulphur ointment. One application of the emulsion after a hot bath was often effective, and a second application twenty four hours later rarely failed to complete the cure. Disinfection of clothing was not necessary and loss of man-power was reduced to a minimum.

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Clinical Notes and Cases

ZOSTER LYMPHADENITIS

BY

Surgeon Lieutenant H. R. MALLOWS, R.N.

The characteristic symptom of herpes zoster is pain, and the most obvious sign is the eruption which appears a few days later. Enlargement of the lymph gland draining the affected area of skin as an accompaniment of the eruption is noted by Roxburgh (1944) and Brain (1947) as an essential part of the syndrome. Wilson (1940) also states that lymphadenitis will occur however slight the eruption, but that it is not usually a source of pain unless the glands be where rubbing or movement is like to occur, and that they may otherwise be overlooked. However, Walshe (1947) does not mention the lymphadenitis, and it is in fact usually overshadowed by the severity of the pain and the exanthem.

The following two cases are of interest in that, though there was pain in the initial stages, it was essentially associated with the lymphadenitis and the presenting symptom in each case was a painful lump. Moreover the eruption in each case was so mild that the lymphadenitis remained as the predominant feature throughout, and persisted after the eruption had completely subsided, whereas the adenopathy characteristically disappears about the seventh day while the eruption is still present (Wilson, 1940). They also suggest a possible line of investigation of the problem of the aetiological rôle of zoster infection in some cases of facial palsy.

Case Histories

Case I.—An officer, aged 25.

This patient complained of a painful lump in the back of his neck which he had had for five days, and on examination there was a large tender mass of occipital glands in the left side, about 12 in. diam. There were no other abnormal signs, and the cause of the adenitis was obscure. Next day (sixth day of illness) three small patches of erythematous herpetic eruption appeared, one just in front of and another just behind the lobe of the ear, and the third one just behind the occipital glands, just to the left of the midline. On the seventh day numerous small vesicles appeared on all the lesions, presenting the typical appearance of a mild case of herpes zoster affecting the second and third cervical segments. There were no further cutaneous lesions, and the eruption had completely subsided by the ninth day of the illness. On the twelfth day, however, the superficial cervical glands also became tender and sufficiently enlarged to be clearly visible and palpable, so as alarmed the patient who thought they herald an [illegible] of the disease. On the twenty-second day the cervical and occipital glands were still noticeably enlarged, but no longer tender.

Case II.—A writer, aged 17.

This patient complained of a painful lump in the left groin, and on examination there was a group of three small tender inguinal glands. There was no sepsis in the [illegible] and the cause of the adenitis was obscure. On the second day there was

[illegible]

Discussion

In the second case the eruption may be described [illegible] It could only have been milder had the patient's erythema [illegible] only one vesicle instead of three It is reasonable [illegible] milder condition might well have occurred or that there [illegible] no skin lesion whatever though in the latter event [illegible] have been doubtful if not impossible Complement fixation [illegible] and Brain 1943) however would provide strong presumptive [illegible] it is suggested that biopsy of the regional glands in such a case would be useful giving a histological picture which though not at the moment pathognomonic is at least strongly suggestive

In 1907 Ramsay Hunt drew attention to geniculate herpes as a cause of facial palsy in a fully developed case vesicles may appear in the external auditory meatus on the pinna the soft palate and the anterior pillar of the fauces If this eruption is mild however it may be missed and be impossible to diagnose by present methods In fact it seems as suggested by Walsh (1941) that geniculate herpes may be responsible for a greater proportion of cases of Bell's palsy than is generally believed

Owing to the degree of cross reactions which occur between the viruses of zoster and varicella in the complement fixation tests (Netter 1924) and the difficulty in culturing the virus (*B M J* 1948) it is not possible yet to point with certainty to zoster infection in any case in which the clinical diagnosis is in doubt When however a satisfactory method of culturing the virus is discovered it seems that an examination of the enlarged regional lymph glands by biopsy or gland puncture might reveal the virus and so provide proof of the nature of the infection If this were done in all cases of facial palsy without manifest herpetic eruption an exact answer might be obtained as to the number of cases which were in fact due to zoster infection

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A CASE OF PULMONARY EMBOLISM TREATED WITH ANTICOAGULANTS

BY

Surgeon Lieutenant-Commander C. D. GOODE, R.N.

This case is reported as of interest in showing the vicissitudes of a case treated with full doses of anticoagulant drugs.

CLINICAL NOTES

Case History.—W. D., aged 23.

This patient was employed in a Royal Naval dockyard in Malta. A letter was received from his own doctor stating that the patient had bilateral inguinal hernia, and it was the first intimation that one hernia was incarcerated. Admission was therefore arranged, and on arrival the patient was found to have a direct inguinal hernia on each side. The right hernia was very large, of twenty-two years duration, and no longer controlled by a truss. The left hernia was of more modest size, and had been noticed about one month previously. Neither of these were incarcerated. The patient's general health and physique were good. On the 9th March, 1948, an operation was undertaken.

Under general anæsthesia the inguinal canals were opened, spermatic cords displaced, and hernial margins defined. The hernial sacs were removed. Each side was then repaired by interrupted, full thickness skin graft under tension to reinforce the posterior wall of the inguinal canal, the external oblique aponeuroses were sutured behind the cords, and the wounds closed.

Next day the patient had a very large hematoma of both groins spreading into the scrotum and root of the penis. Its margins corresponded with the attachment of Scarpa's and Colles' fascia. Hæmostasis at operation had appeared complete so the patient was quietened and relatively reassured. The beloved but useless information that he had kidneys to bleed, after a dental extraction, in accidental ignorance while shaving. The hematoma was infected, the hematoma followed by necrosis of the skin grafts. Normal intravenous penicillin exercises were cancelled, and a course of penicillin was given. Until the patient was kept still in bed. It was thought that the risk of venous thrombosis was small in a bleeder, and the greater risk would be an infected hematoma.

On the fifth day the hematoma was larger, and on the third day the bleeding apparently had stopped. The bleeding time had been found to be 4½ minutes, and the coagulation time 8½ minutes. (Normal times are respectively 2 to 5 minutes, and 4 to 8 minutes.) By the seventh day the hematoma was absorbing, but there was still liquid altered blood in the scrotum. On the eleventh day the situation was satisfactory, and the author, as this article proceeded on seasonal leave, giving instructions that the patient should remain in bed for not the twenty first day. These were adhered to, and the patient made excellent progress.

On the twenty-second day, coinciding with the author's return from leave, there was a dramatic and serious change. At 0200 the patient complained of a sudden onset of severe pain in the chest—a feeling of constriction and breathlessness. On examination his face was ashy grey, the lips were cyanosed, and there was orthopnœa. There were no clinical signs of a thrombus in either lower limb. The hematoma had largely absorbed, but both upper and lower abdominal walls appeared to be held stiff in a most peculiar way. There was a rubbery rigidity of the muscles of the whole anterior abdominal wall.

Clinical examination of the chest showed dullness on percussion over an area roughly corresponding with the right lower lobe. There was grossly diminished air entry within the dull area, and a pleural rub was heard on inspiration. It was clear that the patient had a massive pulmonary embolism, and radiological evidence supported this conclusion.

The site of the thrombus was obviously not in the lower limbs, and it was concluded that it must have originated in the veins of the abdominal wall near the hematoma. Possibly the source was in one or other inferior epigastric vein, and thence spread via an

[illegible] it is of interest that [illegible] around the [illegible] therapy was [illegible] with [illegible] there [illegible]

[illegible] first [illegible] The [illegible]

Twenty [illegible] day [illegible] Hb [illegible] 1600 [illegible] Pulse 120 R 28 [illegible] 4 500 [illegible] 2330 [illegible] 5 000 [illegible]

Twenty third day [illegible] temperature [illegible] 1100 [illegible] 4 000 [illegible] Dicoumarol 50 mg [illegible] 1600 [illegible] up some bright red blood [illegible] pain in right [illegible]

Twenty fourth day Still [illegible] 1400 [illegible] 5 000 [illegible]

Twenty fifth day [illegible] temperature [illegible] over right lower lobe [illegible] Abdomen now relaxed [illegible]

Twenty sixth day [illegible] twice daily

Twenty eighth day [illegible] of blood [illegible] Otherwise looks better

Thirty [illegible] was up for half an hour [illegible] the [illegible] than the [illegible] must have been [illegible] time and [illegible] in [illegible] upper lobe

Thirty second day [illegible]

Thirty third day [illegible]

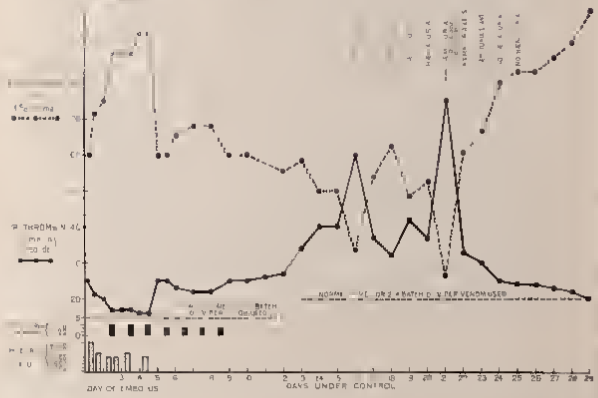
Daily [illegible] blood [illegible]

On the thirty [illegible] the patient [illegible] continued [illegible] being [illegible] At [illegible] plasma [illegible] two [illegible] then transfused

Next day [illegible] On the [illegible] the [illegible] The prothrombin time [illegible] figures At 1430 the [illegible] again transfused 40 ml [illegible] produced a marked improvement [illegible] forty fifth day and the [illegible]

Date	*Prothrombin* [illegible]	[illegible]		[illegible]
31 3 48	1145	[illegible]	Normal 15	[illegible]
	1600	21 [illegible]	[illegible]	[illegible]
1 4 48	0900	20 [illegible]		[illegible]
	1530	17 secs		88
2 4 48	1000	17 secs		88
	1600	17 secs		88

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	60
[illegible]	[illegible]	[illegible]	[illegible]	85.2
[illegible]	[illegible]	[illegible]	[illegible]	85
[illegible]	[illegible]	[illegible]	[illegible]	88
[illegible]	[illegible]	[illegible]	[illegible]	60
[illegible]	[illegible]	[illegible]	[illegible]	60
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	58.9
[illegible]	[illegible]	[illegible]	[illegible]	50
[illegible]	0930	[illegible]	[illegible]	40
[illegible]	0930	[illegible]	[illegible]	33.3
[illegible]	0930	[illegible]	[illegible]	54
[illegible]	0930	[illegible]	[illegible]	62.5
[illegible]	0900	[illegible]	[illegible]	[illegible]
[illegible]	0900	[illegible]	[illegible]	[illegible]
[illegible]	0900	[illegible]	[illegible]	[illegible]
[illegible]	0900	[illegible]	[illegible]	60.7
[illegible]	0900	[illegible]	[illegible]	66.7
[illegible]	0900	[illegible]	[illegible]	80
[illegible]	0900	[illegible]	[illegible]	83
[illegible]	[illegible]	[illegible]	[illegible]	83
[illegible]	0900	[illegible]	[illegible]	87
[illegible]	0900	[illegible]	[illegible]	91
[illegible]	[illegible]	[illegible]	[illegible]	100



[illegible]

In [illegible] from study [illegible] can [illegible] be regarded as [illegible] act of God and explained [illegible] relatives Further it has been stated that nurses juries too are no longer acquiescent in such a view It has been emphasized that pulmonary embolus its prevention and treatment is the responsibility of every surgeon and that in all hospitals measures must be available to cope with this emblem

Preventive treatment need not be stressed here In all naval hospitals with which the author is acquainted routine post operative exercises have been customary for years past Nursing staff are alive to their responsibilities in connexion with moving and encouraging activity in post operative cases

Massive pulmonary embolism when it does occur requires prompt action The first essential is estimation of prothrombin time and index *before* commencing treatment This should be repeated at least twice daily at first then daily Ideally the prothrombin time is estimated four hours after each dose of heparin The effect of heparin passes off in about four hours and thus the need for further heparin can be judged

Prothrombin estimations must be continued *after* anticoagulant therapy has stopped and should not be discontinued until the figures have returned to normal and remained normal Several methods of estimating prothrombin time have been described and there is still controversy as to the best and most reliable method This matter has been submitted to the Royal Naval Medical School and will not be further commented upon here

In the author's experience it is important to obtain a normal base line figure for the patient at the outset whatever method is used It should also be remembered that batches of reagents vary for instance in this case two samples of viper venom were successively in use each of which was in the first instance tested against blood samples from the laboratory staff as well as from the patient Thus a group of readings was obtained from which a mean gave a normal or base line figure for practical purposes

Sequence of Treatment and Control of Overdose —The first anticoagulant used is invariably heparin heparin or other similar compound Heparin and similar substances have the advantage of acting at once but they have the comparative disadvantage that they must be given intravenously though this is offset by the ease with which they can be given in an intravenous drip Their very real disadvantage is that the effects of an overdose are impossible or extremely difficult to control Potassium transfusions have been described as an antidote to overdosage but on this point the author cannot speak with knowledge All references stress the danger from uncontrollable bleeding of an overdose of heparin and for this reason heparin should never be used after the first forty-eight hours

The next anticoagulant given is dicumarol which has one main disadvantage —it takes about forty eight hours to produce any effect Its advantages are that it can be given by mouth and the hemorrhage following an overdose can be controlled

The method of control is by transfusing fresh whole blood of course

[illegible] in cases of [illegible] Recently dried plasma is also efficacious [illegible] while supplies of donors are being mustered.

The practical plan is therefore to commence [illegible] *both* heparin *and* dicumarol and to discontinue the former after forty eight hours. The dicumarol will then have had time to take effect and is discontinued according to the progress of the case.

Dosage to Avoid and Treatment of Overdose.—Doses of such drug have been much discussed. At meetings reported recently several speakers have emphasized that doses in common use have been on the small side. Large doses always under careful clinical laboratory control are obviously imperative in the gravely ill case. It is not a matter of a little of what you fancy does good but rather that a patient's life may be needlessly hazarded unless an adequate dose is boldly given and maintained. In this case the doses were:

Heparin	First day	17,500 units
	Second day	8,000 units
	Third day	5,000 units
	Fourth day	4,000 units
	Total	34,500 units in four days
Dicumarol	Second day	400 mg.
	Third day	300 mg.
	Fourth day	300 mg.
	Fifth day	400 mg. and for five more days
	Total	1,400 mg. in nine days

[illegible] considered adequate doses for the large sale in view of the [illegible] but justified by this and by the clinical response improvement and progress of the case. These large doses necessary in cases of massive pulmonary embolus should not be confused with the much smaller doses used in venous thrombosis, but a short-acting intravenous source of embolus [illegible].

As will be observed from the table and chart the heparin appears to have little effect on the clotting power of the blood. What is excellently shown is the continuous increase in prothrombin time and fall of prothrombin index *after* all anticoagulants have been withdrawn. In this case the fall continued for six days, a well known sequelae of dosage with dicumarol. It emphasizes clearly the necessity for continued hospitalization and laboratory control of this typical case until the blood figures have returned to and remained normal.

The fall in prothrombin index should be watched daily. The danger point is reached at a figure of about 30 per cent of normal. At this stage—if it has not already been done—all anticoagulant drugs must be stopped and the surgeon must prepare to deal with persistent haemorrhage. The patient should be forbidden to shave; the urine should be examined for first signs of haematuria and blood donors should be readily available.

In the event of an unheralded haemorrhage dried plasma may be reconstituted and a drip commenced at once while donors are being found. It must be borne in mind that plasma contains fibrinogen and serum does not. This case illustrates the mistake of confusing the two. So often plasma and

[illegible] available for [illegible] with extensive [illegible]. It is [illegible] that [illegible] dried serum. In dealing with [illegible] fibrinogen content that is needed [illegible] *plasma* [illegible] therefore be available.

Fresh blood containing [illegible] and platelets [illegible] and salts is preferable to plasma. In the [illegible] maintained for five days [illegible] of normal again. More fresh blood [illegible] were then given with the results [illegible] of vitamin K and could safely be reported. The [illegible] two days.

Such is the course of a case treated with anti-coagulant drugs [illegible] be noted that early activity is advisable. The clot [illegible] liquefy early in a case such as fully responding to treatment [illegible] in the limb or arterial circulation in the lung [illegible] should be encouraged. Graded activity leading to early ambulation [illegible] the degree of activity [illegible] to the progress of the patient. In this case he was up for half an hour on the second day after [illegible].

General Conclusions

Throughout the [illegible] allowance [illegible] activity [illegible] must be kept up. Early [illegible] basis. Current practice [illegible] of an ankle and slight [illegible] should be [illegible] and encouraged.

Prompt anti-coagulant therapy coupled with graded [illegible] should become [illegible] the other specialists [illegible] the [illegible] the operation [illegible] hospital [illegible] established.

Pathology and Lessons

Recent surgical [illegible] post-operative [illegible] from [illegible] is [illegible] and Phlebitis [illegible] in [illegible] complete [illegible] Accordingly [illegible] the thrombus and [illegible] mortality where [illegible] of complications. Mechanical [illegible] to disturb the [illegible] of thrombophlebitis and phlebothrombosis [illegible] well organized. The former the typical inflammatory condition [illegible] in the limbs is commonly seen in the superficial veins of the leg following trauma or injection of varicosities. This type of thrombus is firmly attached to the vein wall and the condition is safe in that embolism probably [illegible].

Phlebothrombosis is concerned as a quiet lesion within a vein. The clot is habitually fragmented and embolic [illegible] and therefore the condition

is the most dangerous [illegible] [illegible] [illegible]

[illegible]

[illegible]

[illegible]

[illegible] K [illegible]

A standard test for [illegible] was decided upon in consultation with the pathologist. In this connexion it was felt that a standard method might well be made common in all naval hospitals. The reagents required for working the adopted method (at this hospital viper venom) must also be adequately stocked. Considerable quantities are required where cases are under control for many days.

ACKNOWLEDGMENTS

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EPIDERMOLYSIS BULLOSA

BY

Surgeon Commander B. LEWIS, R.N.

EPIDERMOLYSIS BULLOSA is a rare condition in which there is a disposition to the development to form blisters on the skin and in some cases the mucous membranes as the result of relatively trivial trauma. The cases may be divided into the following types:

(1) An inheritance type.

(2) A type in which the predisposition to bullous formation is so marked by extensive plus of the skin appendages.

(3) A type in which the clinical signs appear for the first time during adult life.

A large proportion of cases give a family history of the which apparently may be transmitted by either parent. In exceptional cases adults appear to have inherited this tendency to develop bulla following slight trauma, but in the majority of cases the condition is congenital and is not infrequently associated with various deformities, particularly of the nails and teeth. The association of this abnormal development of the skin is unknown, but it has been suggested that it has features in common with urticaria and other allergic conditions.

The vesicles and bulla may contain clear or blood stained serum, which does not usually become purulent. The changes which take place in the skin are similar to the changes in pemphigus vulgaris, but in severe cases bullae

[illegible] epidermis and papillary [illegible] — lution [illegible] ing and in any [illegible] by [illegible] mish discoloration which may or may [illegible]

The phenomenon [illegible] as Nikolski's sign [illegible] this is the tendency of the corneal layer of the [illegible] alter the application of pressure It is due [illegible] horny layer of the skin and the Malpighian layer [illegible] monic sign for it may occur in other bullous diseases

In the dystrophic type there is an abnormal development [illegible] only of the skin but also its appendages—the nails and not infrequently the teeth Hyperidrosis appears a relatively common feature in any type of the disease

Case Histories

Case I —A naval telegraphist aged 19

This patient was sent to hospital complaining of blisters [illegible] on his hands It appeared that he had been liable to lose large areas of skin if he slipped and bruised himself over a period of two years or so The skin shed all [illegible] of this was supplied by the numerous discoloured areas in places where [illegible] was readily sustained but there was no scarring anywhere

He had a previous similar attack involving the hands about eighteen months ago which cleared up quite quickly and recently he had been under treatment with impetigo of the face which again was of a vesicular nature and cleared with penicillin creams. There was no other relevant previous or family history

On Examination —There were many blisters flaccid and moderate large and small varying in size from 3 in by 2 in to minute vesicles arising off normal skin and unattended by itching soreness or malaise The skin enclosing the blisters was noticeably tough Burst blisters dried up and did not form crusts nor did the blister contents tend to become purulent The blisters were at the time confined to the hands but the discoloured marks of old lesions were also on the elbows and a few on the shins and knees Nails and teeth were normal Examination of other systems revealed no abnormalities Fundi normal No hyperidrosis

Blood Count		*Differential Count*	
Red blood cells	4 960 000 per c mm	Polymorphs	37 per cent
White blood cells	9 600 per c mm	Lymphocytes	57 per cent
Haemoglobin	96 per cent (Sahli)	Monocytes	3 per cent
Colour index	0 98	Eosinophils	3 per cent

X ray of Chest —Nil abnormal detected

Urine —Normal No darkening on standing No bromides or iodine

Kahn Test —Negative

Blister Fluid Culture —Sterile contents

A small area of skin on the back of the hand was rubbed firmly and a blister formed in eighteen hours

Case II —A marine

This patient noticed that he blistered easily certainly since puberty but could not remember for certain before that He thought he had no trouble as a child Before joining up in 1942 he was a farm worker and had trouble with blistered hands when doing heavy work but no trouble with sunburn On joining the Royal Marines by a series of fortunate occurrences he managed to avoid marching until he joined his present ship when it at once became apparent that he was quite incapable of any but the shortest parades owing to large blisters forming No other developmental peculiarities teeth and

[illegible]

[illegible]

Arsenic in [illegible] in Case I. Ultraviolet [illegible] treatment must be symptomatic [illegible]

It is perhaps notable that the lesions in Case I subsided after six weeks without any other than palliative treatment, for it is stated in the literature that some cases resolve spontaneously.

SUMMARY

These are therefore considered to be examples of epidermolysis bullosa in Case I belonging to a rare variety in which the disease develops in adult life. In this case also spontaneous recovery from one attack has occurred with relapse twelve years later.

My thanks are due to Surgeon Rear Admiral O. D. Brownfield, *O.B.E.*, for his permission to publish these cases and to the *British Medical Journal* for permission to reprint Case I.

CARCINOMA OF PROSTATE WITH SECONDARIES IN BONES

BY

Surgeon Commander T. L. CLEAVER, R.N.

Case History.—A pensioner C.P.O. R.A., aged 57.

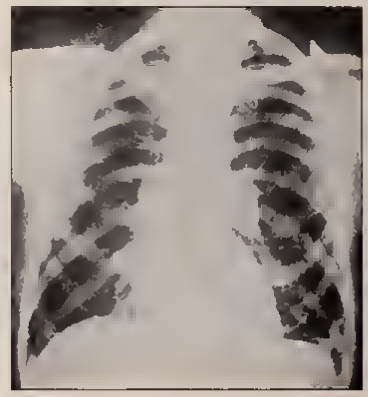
The patient had been feeling [illegible] for three months, but continued to work normally until 19th April, 1948, when he had a tooth removed. This was followed

[illegible] 1 to 1 000

[illegible] the [illegible] rrhage [illegible] excluded [illegible] the lungs [illegible] abnormal [illegible] changes [illegible] considered [illegible] ration [illegible] from [illegible] the patient [illegible] follows [illegible] is smooth and well defined [illegible] a carcinoma [illegible] cells [illegible]

[illegible] transmitted back to his [illegible] secondary growths

This is a good example of the well recognized though relatively rare condition of malignant disease of the prostate causing no symptoms of itself



[illegible]

My thanks are due to Surgeon Lieutenant-Commander [illegible] R.N., radiologist, for his invaluable assistance in the [illegible] findings.

A SLOW PULSE

BY

Surgeon Lieutenant C. J. STEVENSON, R.N.

C[illegible] H[illegible]—[illegible] G. R., aged 28.

This [illegible] was admitted to the staff [illegible] training ship [illegible] with first fall she struck the left side of her face and [illegible] ness and was able to walk back [illegible] the following day she [illegible]

[illegible] The left temporal [illegible] fracture [illegible] Under local anæsthesia [illegible] Blood pressure 140/75. No [illegible]

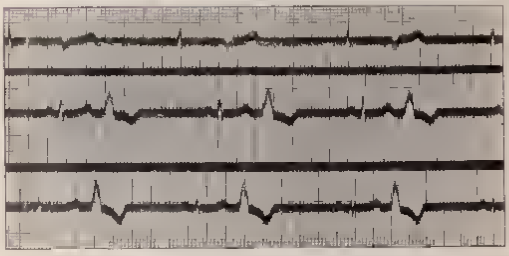
[illegible]

[illegible] the heart sounds were heard as [illegible] the second beat and a compensatory pause [illegible]

[illegible] per minute

[illegible] II

[illegible] ard m su[illegible] When [illegible] than [illegible] If an hour [illegible] stu[illegible]



[illegible] E.C.G. taken five after admission [illegible] regular ventricular extrasystoles [illegible] were present but in the normal limits but absent before the extrasystoles

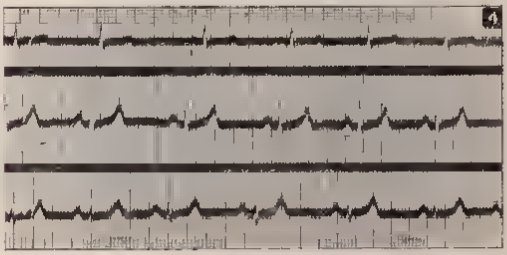


FIG. 2.—An electrocardiogram taken [illegible] slight tendency [illegible] the left deviation [illegible]

Discussion

Pulsus bigeminus [illegible] due [illegible] recognized. The condition is of interest in the [illegible] injury (and in whom the effect of exercise could not [illegible] time) as at first the second pulsation could not be felt but the [illegible]

Coupling may be associated with digitalis overdosage. It also [illegible] heart block and with multiple extrasystoles. The latter can be distinguished from heart block by their prematurity and when weak enough by their [illegible] to produce a second heart sound (as in this case at first). The latter phenomenon is believed to be due to failure of the aortic valves to (open and) close [illegible] exercising extrasystoles disappear and their return is heralded by a premature beat but with heart block an unusually long pause is first noted.

Extrasystoles in the absence of accompanying evidence of coronary lesion can be safely ignored. Where such a lesion is present they have served their purpose as a stimulant to the closer examination of the heart and the prognosis is that of the lesion discovered.

The prognosis in cases in which extrasystoles are persistently present in long groups of successive beats is less precisely known (Lewis 1942) [illegible] in these cases the heart's energy expenditure may be increased.

BIBLIOGRAPHY

Lewis Sir T. (1942). Diseases of the Heart. (3rd Edition). Macmillan & Co. Ltd.

REPLANTATION OF TEETH

By

Surgeon Commander (D) P. S. Turner, R.N.

Replantation of teeth is the operation of replacing in the socket [illegible] which has been extracted or knocked out. This operation is not [illegible] in the United States of America but does not appear to be much in [illegible] in this country.

In quoting three cases it is not intended to advocate the practice but merely to point out that it can be successful as a last resource when [illegible] patient is [illegible] on saving the tooth at all costs.

Case 1. Petty Officer W.R.N.S., aged 23.

[illegible] 1946 this patient reported with an [illegible] the right central incisor was found displaced [illegible] and [illegible] was instituted. On the 28th October 1946 a dental surgeon [illegible] the tooth [illegible] and replanted the tooth. The operation was [illegible] [illegible] and the tooth was splinted. The splint was [illegible] [illegible] and the tooth [illegible] [illegible] silk.

[illegible] 1948 the tooth looked quite normal [illegible] [illegible] the X-ray photograph [illegible] it is noted that [illegible]

[illegible]

[illegible]

[illegible]

Case III.—A B [illegible]
On the 15th January 1910 [illegible]
After an X-ray the tooth [illegible] weekly for three weeks [illegible]

[illegible] In the [illegible] the [illegible] all [illegible] and [illegible] [illegible] X ray [illegible] X-ray was present [illegible]

On the [illegible] firm and cool [illegible]

Figure 5

Figure 6

Since this [illegible] the [illegible] complications but we [illegible] to follow them [illegible] [illegible]

Reviews

[illegible] M.D. [illegible] Mosby Co. [illegible] Hospital [illegible] County [illegible] [illegible]

[illegible] helpful [illegible] [illegible] XXXI [illegible] XXXI [illegible]

[illegible]

[illegible] Clark [illegible] ships on the [illegible] le between [illegible] and others [illegible] laugh [illegible] exclusive [illegible] d cul [illegible] t of [illegible] serum [illegible] again [illegible] ssibly [illegible]

[illegible] clery [illegible] s low much [illegible] rs

EMER [illegible] n Bolt [illegible] FICS [illegible] Hospital [illegible] Hospital [illegible] nor Surgeon [illegible] 207 with [illegible] n Simplon Marshall [illegible]

Part I [illegible] published and in his [illegible] to expect [illegible] ngry of the abdomen [illegible] k

BACTERIAL [illegible] 168 [illegible] with [illegible] d [illegible] student will [illegible] and virus [illegible] ms and [illegible] total [illegible] into any [illegible] r reading [illegible]

[illegible] ROYAL ARMY M[illegible]
R A M [illegible] 1948 to 41 Allied [illegible]
We [illegible] right [illegible]
Jubilee [illegible] publishe[illegible]
of mu[illegible] all [illegible]
R A M C We [illegible]

HANDB[illegible]
D R M [illegible] R C [illegible]
Th[illegible] 1948 by [illegible] 6d
Th[illegible] 1[illegible] 6d
Th[illegible] stated in [illegible]
fi[illegible] two [illegible]
St[illegible]
[illegible]
[illegible]
Th[illegible]
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E[illegible] 1948
[illegible]
As [illegible] ished
n 1943 [illegible] the
questions [illegible]
[illegible]
This [illegible]
[illegible]

W[illegible]
Ind[illegible]
Re[illegible]
H[illegible]
J[illegible]
Q[illegible]
of th[illegible]
M[illegible]
M[illegible]
F[illegible]
Ro[illegible]
St[illegible]
Ha[illegible]

News of the Service

VISIT OF HIS MAJESTY KING GEORGE VI TO ROYAL NAVAL HOSPITAL, CHATHAM

During a tour of establishments in the Nore Command His Majesty the King visited the Royal Naval Hospital, Chatham on 21st July 1948. Accompanied by Major Michael Adeane (Private Secretary), Captain Sir Harold Campbell, R.N. (Equerry) and Admiral Sir Harold Burrough, *K.C.B., K.B.E., D.S.O.* (Commander-in-Chief, The Nore), His Majesty was received at the

[illegible] Medical Officer [illegible]

After [illegible] Senior Officers His Majesty visited the sick officers' day room [illegible] officers had been assembled A visit was then made to the [illegible] where His Majesty spoke to a number of patients After talking [illegible] Hospital His Majesty left and was given an enthusiastic send off by all [illegible] and medical staff

Since its [illegible] in 1906 by His Majesty King Edward VII the Royal Naval Hospital [illegible] visited by each reigning Sovereign

SPORT

ROYAL NAVAL HOSPITAL HASLAR

Football

Until a total of some fifty matches during the season only one was lost and that the semi-final of the Chinnis Cup We had little difficulty in winning the Flindlow Cup in Championship Cup and although the winning of the Junior Flindlow Cup was a great first perhaps our greatest victory was in retaining the Inter Port Hospitals Football Cup in the first post war competition We beat R N Hospital Plymouth by four goals to three after a really keen match It is these inter port hospital competitions which really bring out the best in the players and spectators and their resumption has been eagerly awaited throughout the War

The football season is again upon us and with a lot of new blood we once [illegible] forward to a successful season The inter port competition has been [illegible] to take place at Plymouth in November 1948 and there are already [illegible] keenness among the younger players who hope to represent Haslar

A popular game here at the moment is Rugby A beginning was made last [illegible] and a few matches were played although the weather upset quite a number of the fixtures However there is now a large list of prospective players [illegible] during this first trial and a good fixture list has been carefully prepared It is hoped that this game will become increasingly popular so that we may build a really first class team The ambitious are already talking about an inter port rugby competition being arranged some time in the not too distant future

Cricket

The cricket season has now come to an end An average of approximately two matches a week have been played and the cricket has been of a fairly good average We managed to win the inter port hospital cricket trophy thus retaining our records for an run defeat by Chatham in 1947 It is hoped that we shall be able to beat Chatham Hospital for the next competition

Water Polo

For the first time in the history of Royal Naval Hospital Haslar a water polo team has been formed by the medical and nursing staff In spite of the advancing years of the majority of the players (average age 36) the matches

in the Portsmouth water polo league have been played with great enthusiasm and credit must be given for the way they have tackled teams far superior to themselves. Up until the 1st September 1948 the league position was sixth out of ten having played 12 games—winning two drawing four and losing six.

TENNIS

The hospital has many good players in the Medical Mess but they are unable all to play at the same time. Had they been able to do so our team might have got within reasonable distance of the finals of the inter establishment knock out competition. In the first match we beat the Mechanical Training and Repair Establishment Flathouse and in the second round lost by the narrowest margin of one set to H.M.S. *Duke of York*.

At August bank holiday an American Tournament was held at the Hospital with an entry of forty players. Unfortunately rain caused the tournament to be abandoned.

Two of our Sisters—Miss Vera Shouten and Miss Marion Sadler have been chosen to represent the Q.A.R.N.N.S. in the inter services tennis tournament to be played on the 23rd September.

ROYAL NAVAL HOSPITAL CHATHAM

The third annual sports meeting between the medical and nursing staffs of the Royal Naval Hospital Chatham was held on the 30th June 1948 and as in previous years proved both successful and enjoyable. Bad weather had considerably hampered the work of preparing for the great occasion and even to almost the last minute frequent showers and a keen wind threatened to ruin the proceedings. However shortly before zero hour and as if in answer to the many prayers of the organizing committee the rain ceased the wind dropped and the sun appeared to reign majestically throughout the afternoon and early evening. As if to remind us that his blessings were not to be taken lightly or for granted normal routine was resumed at night but we continue to marvel at the apparent miracle of that afternoon.

Among the distinguished visitors was Surgeon Vice Admiral Sir H. St C. Colson Medical Director General of the Navy the Mayor and Mayoress of Gillingham (Alderman and Mrs. T. P. Bunce) and Rear Admiral Middleton Admiral Superintendent H.M. Dockyard Chatham. Among the lesser distinguished visitors perhaps but nevertheless welcome were about two hundred and fifty children who disported themselves among the swings roundabouts slides see saws ponies and Punch and Judy shows with an enthusiasm that was a joy to watch and a vigour that must have taxed the resources of energy of their accompanying parents and escorts.

The competitions consisted of teams formed by the Officers Chief and Petty Officers L.S.B.As and S.B.As and P.S.B.As and this year we welcomed a team of our colleagues from the Sick Quarters Royal Naval Barracks. The Greeson Trophy presented by Surgeon Rear Admiral C. E. Greeson was won by the Probationary Sick Berth Attendants for the

second [illegible] with a margin of 28 points [illegible] rivals the [illegible] 63½ points

P.S.B.A. [illegible] to Victor Ludorum Tr phy [illegible] 0 yards 220 yards and the long jump. The running of this youngster [illegible] to match and his long jump effort of 18ft. 5 in. beat all previous records for this event.

As in previous years the Dugenham Girl Pipers gave another attractive performance of Scottish marches, reels and dances. Their colourful costumes glistening in the glorious sunshine and blending with the surrounding flower beds, bushes and green hedecked with flags provided a spectacle that surpasses adequate description.

At the conclusion of the presentation of the prizes by Mrs. C. E. Greeson the Surgeon Rear Admiral expressed his thanks to the organisers, the competitors and the spectators for their support, the Dugenham Girl Pipers, the Seamen's Band, H.M.S. *Pembroke* for their entertainment and all who helped to make the event a success. He also referred to the fact that in the near future he will be leaving the Royal Naval Hospital. "This is the third year we have had our sports here," he said, "and contrary to expectations it has turned out a lovely afternoon. I am sorry I shall not be here next year for the sports unless the committee invite me, and then of course I shall come down here with the greatest of pleasure."

Three cheers were given for Surgeon Rear Admiral and Mrs. Greeson and with that another Royal Naval Hospital Chatham sports day came to an end, and many a tired and grubby youngster went wearily home to bed.

At present cricket, tennis and indoor sports have been included and representative teams from Officers, Senior Staff, Junior Staff, Probationers and Pensioners have taken part in all or some of these competitions.

Cricket

The Denny Cup is competed for and has this year been won by the S.B.C.P.O.'s Mess after very keen play. The games have been exciting and although the standard of play is not always of the highest, the energy used compensated in some measure for the lack of skill. On four occasions the result has been decided by less than 10 runs.

Tennis

The inter-mess tennis competition is new this season, and although the Officers have not put a team in, the Sisters and V.A.D.'s have, and many enjoyable games have been played.

The summer time is well filled by these events and it is hoped to make available plenty of activity for the winter months. For this we have competitions for the indoor sports shield, which covers billiards, darts, bridge, cribbage and table tennis. The pensioners team have won this on nearly every occasion in previous years and on the occasions when they play, the canteen receipts definitely show an upward trend. An effort was made last year to produce some outdoor activity during the winter months but it failed through

[illegible] support—perhaps the weather had something to do with [illegible] idea will be tried again this year. It is an Inter Mess Challenge Trophy [illegible] which a mess may challenge any other at almost every game. The trophy [illegible] be held for one week only unless a challenge is unsuccessful. The games included football, hockey, baseball, volley ball, badminton and tennis. The Hospital of course produced teams for cricket, football and hockey for outside competitions and did quite well this year against local clubs in Kent.

Inter-Port Hospital Cricket and Football Tournament

This inter port tournament has been going now for some years. It started in 1932 after lengthy correspondence between the three sports secretaries. It has been the cause of considerable enjoyment to the staff in all three divisions and the friendly rivalry between the competing teams and the sporting spirit shown in all the matches has been exemplary.

The games from 1932 to 1939 were held at Haslar and the Chatham and Plymouth teams travelled there for the games. A draw was made to produce a bye for one team, the winner of the first game playing the remaining team for the coveted trophy.

In 1947 the games were re commenced at Haslar and the new rules now state that the tournament for both cricket and football shall be held at each hospital in turn, the home team getting the "bye" in each case. Therefore the games are played at Plymouth this year and Chatham will be the hosts in 1949. A resume of the results to date are as follows:

Cricket		Football	
Won by Chatham	1932	Won by Chatham	1932–33
Won by Chatham	1933	Won by Chatham	1933–34
Won by Chatham	1934	Won by Chatham	1934–35
Won by Haslar	1935	Won by Haslar	1935–1936
Won by Haslar	1936	Won by Chatham	1936–37
Haslar and Chatham (Match Drawn)	1937	Won by Chatham	1937–38
Won by Chatham	1938	Won by Haslar	1938–39
Won by Haslar	1939	Won by Haslar	1947–48
Won by Chatham	1947		
Won by Haslar	1948		

It will be noted that Plymouth has so far failed to win in any of these competitions, but I think it shows a grand spirit that after all these years they still compete with great keenness and have never once lodged a complaint out of gear which gives first best.

ROYAL NAVAL HOSPITAL PLYMOUTH

Rugby Football

A rugby team was formed in R.N. Hospital Plymouth some years ago and has always given a good account of itself, but never has the team been so successful as during the 1947–48 season. Tremendous enthusiasm was shown by players and supporters alike, and under the leadership and guidance of Surgeon Lieutenant Commanders R. W. Tuple and J. A. McLaren, R.N., and

Surgeon Lieutenant W. B. Whowell, R.N.V.R., the team scored 318 points against 114, winning 18 games out of 22 played.

In addition a team of under 19s was entered for a local competition, the Podrick Cup, and this they carried off without having a point scored against them. In another open cup competition for the Lockie Cup we reached the semi-finals, being beaten by H.M.S. *Drake*, the winners.

It is hoped that one of these days, when there is not such an acute shortage of staff, it may be possible to organize an inter-hospital rugby competition on the lines of the cricket and soccer competitions.

CRICKET

Among the cricketers too there has been no lack of enthusiasm, and our team included some very able players, the Medical Officers being represented by Surgeon Lieutenant Commander Tipple, R.N. We met with only average success during the season, however, while in the inter-hospital competition played at Mount Wise on the 15th and 16th July, 1948, we failed dismally. Having won the toss against Haslar we elected to bat first and this was apparently our downfall as our side were all out for 73. Haslar made 183 for 6 wickets and declared. The Plymouth side went in again and knocked up 125 for 4 wickets, but this unfortunately did us no good as it was a two innings match.

In their game against Chatham next day Haslar again won comfortably and thus carried off the Cup.

A dinner and dance followed in the Sick Berth Staff Quarters. This was attended by a number of members of the Medical Mess and a good time was enjoyed by all.

TENNIS

In the Plymouth Command Open Tournament held at Mount Wise, S.B.C.P.O. T. Grundy reached the finals of the singles while Surgeon Lieutenant Commanders R. W. Tipple and N. S. Marsden, R.N., were in the semi-finals of the men's doubles.

S.B.C.P.O. Grundy was also selected to represent the Plymouth Command in the inter-port tournament at Portsmouth.

OBITUARY

We regret to report the death of Surgeon Rear Admiral J. H. FERGUSSON, and send our deepest sympathy to his relatives.

Surgeon Rear Admiral Fergusson died on 3rd August, 1948. Born in 1874 he qualified in 1897. He was promoted to Surgeon Commander in November, 1914, Surgeon Captain in December, 1923, and to Surgeon Rear Admiral in the 24th April, 1929. In 1931 he was Surgeon Rear Admiral at the Royal Naval Hospital, Malta, and on the 14th November, 1932, he was placed in the Retired List, shortly afterwards Surgeon Rear Admiral Fergusson was [illegible] C.B.E. in 1928, in which year he was Principal Medical Officer in H.M.S. [illegible] during the First World War he served in His Majesty's Ships *Devonshire* [illegible] J. A. M. writes —

Surgeon Rear Admiral Fergusson was a man of great charm and won the respect [illegible] who served with him, and was widely admired and liked by members

[illegible] He was an able administrator [illegible] hostes [illegible] of The Hospital Ship *Maine* and the [illegible] and general estimation. When [illegible] was the best hard officer [illegible] son was a good athlete [illegible] He was a well known figure [illegible]

PROMOTIONS

[illegible] ler W. H. F. McKee promoted to [illegible] 1948

[illegible] Lieutenant-Commander (D) J. H. [illegible] 1st July 1948

[illegible] Lieutenant-Commander (D) B. L. S. [illegible] 1st July 1948

[illegible] Lieutenant J. F. Macintosh promoted to [illegible] 1948

[illegible] A. Burns promoted to [illegible] 1948

[illegible] Lieutenant-Commander R. S. T. M[illegible] Commander 1st August 1948

[illegible] Commander L. A. Turnbull promoted to [illegible] 1948

[illegible] Lieutenant-Commander A. C. Hi[illegible] September 1948

SHORT SERVICE COMMISSIONS

[illegible] D.S.C., R.D., R.N.S.R. retained as Acting Surgeon Lieutenant [illegible] 15th July 1948

[illegible] M.B., Ch.B. returned as Acting Surgeon Lieutenant [illegible] Commission 8th August 1948

L. V. M[illegible] M.B. entered as Acting Surgeon Lieutenant [illegible] Commission 2nd September 1948

H. C. [illegible] M.B., B.S., M.R.C.S., L.R.C.P. entered as Surgeon [illegible] Short Service Commission 2nd September 1948

J. [illegible] L.R.C.P., L.R.C.S., L.R.F.P.S. entered as Surgeon [illegible] Short Service Commission 2nd September 1948

R. W. V[illegible] M.R.C.S., L.R.C.P. entered as Acting Surgeon [illegible] Short Service Commission 2nd September 1948

B. W. C. [illegible] B.Ch. retained as Acting Surgeon Lieutenant [illegible] Commission 7th February 1948

TRANSFERRED TO SHORT SERVICE COMMISSION

Temporary Acting Surgeon Lieutenant J. N. C[illegible] R.N.V.R. [illegible] Service Commission 1st July 1948

RETIREMENTS

Surgeon Captain V. W. North, *O.B.E.* (Rtd.) retired to the Retired List [illegible] February 1948

Surgeon Captain M. S. M[illegible] (Rtd.) retired to the Retired List [illegible] 15th May 1948

Surgeon Captain G. T. Hurst (Rtd.) retired to the Retired List [illegible] 1948

Surgeon Rear Admiral J. V. O'Hara, *C.B.* placed on the Retired List [illegible] 1948

Surgeon Lieutenant-Commander J. M. Couchman, *D.S.C.* [illegible] (medically unfit) 20th October 1948

ROYAL NAVAL VOLUNTEER RESERVE

TRANSFER TO THE PERMANENT LIST

Temporary Surgeon Lieutenant James Witt transferred to Permanent [illegible] July 1948 with seniority as a Surgeon Lieutenant of 30th March 1948.

ENTRIES

[illegible] R. Richardson, M.R.C.S., L.R.C.P. entered as Probationary Temporary Acting Surgeon Lieutenant, 19th July 1948.

[illegible] R. Cattle, L.D.S., R.C.S. entered as Probationary Temporary Acting Lieutenant (D), 15th July 1948.

[illegible] Mc.D. Todd, L.D.S., R.F.P.S. entered as Probationary Temporary Acting Sub-Lieutenant (D), 15th July 1948.

[illegible] W. Herbert, L.D.S., R.C.S. entered as Probationary Temporary Acting Sub-Lieutenant (D), 19th August 1948.

[illegible] L. Hall, B.D.S. entered as Probationary Temporary Acting Sub-Lieutenant (D), 19th August 1948.

[illegible] L.D.S. entered as Probationary Temporary Acting Surgeon Lieutenant, [illegible] August 1948.

[illegible] M.B., B.S., M.R.C.P. entered as Probationary Temporary Acting Surgeon Lieutenant, [illegible] September 1948.

[illegible] M.R.C.S., L.R.C.P., M.B., B.S. entered as Probationary Temporary Acting Surgeon Lieutenant, 2nd September 1948.

[illegible] B.D.S. entered as Probationary Temporary Acting Surgeon Lieutenant (D), [illegible] September 1948.

[illegible] L.D.S. entered as Probationary Temporary Acting Surgeon Lieutenant (D), [illegible] 1948.

RETIREMENTS

[illegible] Commander R. F. Gaunt placed on the Retired List [illegible] 1948.

[illegible] Lieutenant C. Moon, *R.D.*, placed on the Retired List, 30th June 1948.

QUEEN ALEXANDRA'S ROYAL NAVAL NURSING SERVICE

TRANSFERS TO THE PERMANENT SERVICE

Miss M. C. Harvey, Nursing Sister Reserve, transferred to the Permanent Service, 30th July 1948.

Miss C. M. M. Ashton, Nursing Sister Reserve, transferred to the Permanent Service, 30th July 1948.

RETIREMENTS

Miss V. I. Price, Nursing Sister, appointment terminated at own request, 23rd July 1948.

Miss I. C. Wood, Nursing Sister, appointment terminated at own request, 24th July 1948.

Miss E. M. Green, Nursing Sister, appointment terminated at own request, 30th June 1948.

WARDMASTER OFFICERS

RETIREMENT

[illegible] Warrant Officer [illegible] Fielding, placed on the Retired List (ag.) and [illegible] 1948.

ADMIRALTY FLEET ORDERS

2132.—Aviation—Regulations—Aircraft Accident or Forced Landing—Medical Officer's Report

(A/A X 688/47 — 2 Jul. 1948)

The following *amendment* is to be made to A.F.O. 627/48, article 179.

Paragraph 1.—*Delete* and *substitute*

A medical report on Form M.Ty.1 is to be rendered in all cases of injury. It is also to be made where death or injury of any description is sustained by an aircraft passenger, and also in all cases where useful information may result from knowledge of the fact. In cases where there have prevented injury. In accidents where no injury is sustained the report of the medical report is to be left to the discretion of the Commanding Officer of the ship or station as advised by the Senior Medical Officer.

In order that the fullest medical records may be kept the medical officer should ensure:—

(*a*) summary for a coroner purposes. Approved X.C. (S1205C) should be filed in all cases of injury on joining a ship or station.

(*b*) be informed when a person medically examined subsequently may be called upon to give evidence in a civil court in consequence of an injury sustained in the Royal Navy, the Commanding Officer should ensure that the medical examination is considered necessary.

2. A.F.O. 2815/47 Sect. III B (2) is to be regarded as *amended* to read:—

(*A.F.O. 2615/47 and 627/48*)

(*A.F.O. 316/48 is cancelled*)

2150.—Eyesight—Night Vision Testing—Establishments Detailed to carry out Tests

(M.D.6—1388/48 — 2 Jul. 1948)

It has been decided that night vision testing will be carried out at the following establishments:

H.M.S. Excellent
R.N. Gunnery School, Chatham
H.M. Gunnery School, Devonport
H.M.S. Mercury
H.M.S. Raleigh
H.M.S. Impregnable
H.M. Signal School, Chatham
H.M. Signal School, Devonport
Royal Marine Barracks at Eastney, Deal, Chatham and Plymouth
Royal Naval Barracks at Portsmouth, Chatham and Devonport
Royal Naval Hospitals at Haslar, Plymouth, Chatham, Portsmouth, Malta, Bermuda, Malta, Hong Kong, and Lemnalta
Central Air Medical Board
Royal Naval Air Stations at Hornchurch (for Flag Officer Air Home)
Royal Naval Air Station, Hatston
Royal Naval College, Dartmouth
Admiralty Medical Board
H.M. ships at Algiers, Lemnos, Brace and Port Vathy.

2. All ships or establishments not mentioned in paragraph 1 should arrange for the testing of the night vision of their personnel by the Senior Medical Officer.

(*A.F.O. 74/46, 90/47 and 1/48, 1423/46*)

(*A.F.O. 182/48 is cancelled*)

2151.—Eyesight Standard—Stoker (Normal Entry)

(N.L.N. 484/48 — 1 Jul. 1948)

The attention of the Admiralty has been drawn to the anomalous position existing regarding the Eyesight Standard for Stoker (Normal Entry) the lowest standard for which is 12/12 corrected with glasses in one eye and one

[illegible] with good opportunities [illegible] recruits but [illegible] Senior Mechanic [illegible] with [illegible] required [illegible]

2229.—Dentists—Technicians—Provision of artificial teeth [illegible] 1948.

[illegible] 5th July, 1948 [illegible] 1948.

[illegible]

[illegible]

[illegible]

[illegible] 1871/47 [illegible] 230/48.)

[illegible]—[illegible] Health Service (Dental Services)—Scale of Fees [illegible]

[illegible] 15468/48.—9 July 1948.)

[illegible] (Dental Services) Scale of Fees [illegible] is for calculating any charges [illegible] facilities are not available [illegible] scale to be followed when [illegible] patients taking into account [illegible] taking, [illegible] the charges to be made [illegible] Council.

SCALE OF FEES

[illegible] 16s. 0d. [illegible] if (a) repairs [illegible] tulous patient [illegible] dental practitioner [illegible] is entitled [illegible] be for an [illegible]

[illegible]

[illegible] individual

[illegible]

1. [illegible]
   1. [illegible]
      a) [illegible]
      b) [illegible]
   2. [illegible]
   3. Selection [illegible]

4. [illegible]
   1. [illegible]

5. Re[illegible]
   2. [illegible]
   3. M[illegible]

6. [illegible]
   1. [illegible]
   3. [illegible] 5th
   4. [illegible] 8th
   5. [illegible] 11th
   10. 13 or 14 [illegible]
   15. [illegible] 17 [illegible]
   18. 11 or 2 [illegible]
   19. or 20 [illegible]

7. [illegible]
   1. [illegible]
      [illegible]
      1. [illegible] 5th
      4. 11 [illegible]
      12. 18 [illegible]
      20 [illegible]

[illegible] that [illegible]

8. [illegible]
   (a) [illegible]
   (b) [illegible]
      1. 2 or 3 [illegible]
      4. 8 [illegible]
      9. 11 [illegible]

[illegible]
   (a) [illegible]

9. [illegible]
   [illegible]

10. Repeat [illegible]
   (a) [illegible]
      (a) [illegible]
      (b) [illegible]

[illegible]	[illegible]
Maximum fee for [illegible]	[illegible]
[illegible] dental appliances [illegible]	[illegible]
[illegible] plates radium applications	[illegible]
11 [illegible] —per tooth [illegible] not [illegible]	4 0s. 0d. [illegible]
12 [illegible] (including any scaling)	21 [illegible]
13 [illegible] treatment (including deep [illegible] of traumatic occlusion [illegible] instruction, etc.)	42 [illegible]
14 [illegible] upper or lower jaw	1 [illegible]
15 [illegible] —	
[illegible] —	
[illegible]	10 [illegible]
[illegible] additional film	7 [illegible]
[illegible] films —	
[illegible] film	21 [illegible]
16 [illegible]	
[illegible] in addition to appropriate [illegible]	2 17 [illegible]
[illegible] treatment	[illegible]
17 [illegible]	
18 [illegible] using a special application [illegible] splints	[illegible]
19 [illegible] of [illegible] and roots impacted [illegible]	1 [illegible] to a [illegible] together with [illegible] fee when [illegible] such [illegible] may in [illegible] approved
[illegible]	
[illegible]	
[illegible]	21 4s. 0d.
[illegible]	16s. 0d.
[illegible]	1 [illegible]
[illegible]	10s. 0d.
22 [illegible]	1 0s. 0d.
23 [illegible]	10s. 0d. per [illegible] plates
24 [illegible]	Such fee as may be [illegible]
25 [illegible]	8 12s. 6d. [illegible]
[illegible]	8 12s. 6d. [illegible]
[illegible]	7 10s. 0d. [illegible]

[illegible]

2247.—M[illegible]—R.N. Orthopaedic Rehabilitation Centre—Transfer to Worthy Down

(M.D.G. 583348.—[illegible] April 1948.)

[illegible] Rehabilitation Centre [illegible] H.M.S. "Kestrel" [illegible] April 1948.

[illegible] Winchester 2958 [illegible] H.M.S. "Kestrel" [illegible]

[illegible] Worthy Down [illegible] Royal Naval [illegible] R.N.D.E. [illegible] R.N.S. [illegible]

[illegible]

(A.L.O. 1534/48.)

2248.—Personnel—Officers and Ratings of the L.A.S. Branch—Selection and Aural Care.

(N. 6809/48.—9 July 1948.)

In order that audio apparatus may be operated [illegible] ensure that the officers and ratings concerned [illegible] to attain these standards will not prejudice [illegible] the assessment for general service [illegible]

Number of Hearing. All candidates [illegible] L.A.S. [illegible] conditions:—

(*a*) *A* [illegible] H[illegible] good audit[illegible] of 250 to 4 000 [illegible] (c/s)

(*b*) *D*[illegible] Attain a pitch [illegible] of 30 c/s either side [illegible] a basic pitch [illegible]

3 [illegible] (only) [illegible] hearing standard [illegible] —

[illegible]	*Maximum permissible loss in either ear*	*Maximum permissible loss in either ear*
[illegible]	[illegible] decibels	20 decibels
[illegible]	[illegible] decibels	30 decibels

[illegible] A moderate amount of asymmetry is [illegible]

[illegible] candidate who does not attain a pitch [illegible] but who can attain a discrimination of ±40 c/s [illegible] Such candidates will be retested two weeks [illegible] above standard [illegible]

5 All [illegible] candidate can be considered who have [illegible] pitch [illegible] If such a candidate [illegible] the limits laid down and he has not [illegible] of age for the past five years then he [illegible]

[illegible] [illegible] for the above acuity and discrimination [illegible] Mark III and Mark III (to be replaced by [illegible] Mk IV [illegible] and tests can be carried out in the [illegible]

H M S [illegible] R N Barracks Chatham

H M S [illegible] R N Hospital Plymouth

[illegible] R N Hospitals to determine whether they [illegible] T A S [illegible] final and concise tests will be done at the T A S [illegible]

[illegible] for Lieutenant —All Sub Lieutenants will be [illegible] during their T A S course for the rank of [illegible] shall be included in the report on their results These [illegible] the officer [illegible] T A S Central Officer and will be taken into [illegible] aural standard [illegible] Sub Lieutenants since they will be employed [illegible]

5 *[illegible] Junior Officers* [illegible] of the T A S Branch [illegible] Branch [illegible] T A S Establishment Courses [illegible]

Officers	H M S Vernon
Ratings	Transport H M S Defiance
	Chatham } H M S Vernon
	Portsmouth }

A failure [illegible] and choice will not necessarily [illegible] duties within the [illegible] Basic Visual Standard (B V S)—unsuitable for Asdic Operation [illegible] the employment of V/S duties at sea

9 *Periodical [illegible] of the [illegible]* [illegible] the T A S Branch are [illegible] years [illegible] months in order to discover [illegible] (especially in hot climates) disease wax or impacted [illegible] which affect the naval efficiency Personnel in small ships not carrying a medical officer [illegible] base medical officer for this purpose

[illegible] to the [illegible] Order [illegible]

(d) *Care of Stuffs*—Experience has shown that [illegible] defects to the Stuffs [illegible] proposed [illegible] Part II publication [illegible] Stuffs [illegible]

(e) [illegible] Stuffs [illegible] be supplied [illegible] paragraph 4 of A.F.O. 7083/45 (Medical Stuffs, Hospital [illegible] to be replaced [illegible]).

(f) It is possible that [illegible] be [illegible] by the transmission of the notes [illegible] carriage [illegible] Stuffs should be [illegible] phones forward off the notes [illegible] replace them as soon as possible after the [illegible]

(*A.F.O. 7084/45*)

(*A.F.O. 4006/47 is cancelled*)

2247.—Ratings—Sick Berth Staff in H.M. Ships and Establishments to which a Portable X-ray Unit has been Supplied—Instruction of Ratings in the use of Service Afloat X-ray Unit.

(M.D.C. 14813/48.—9 Jul 1948.)

It is apparent that the instructions contained in A.F.O. 284/47 are not being carried out. In view of the urgent necessity for training Sick Berth Staff the following Order is to be strictly observed.

2. The Medical Officer in charge of a ship or shore establishment to which a portable X-ray Unit has been supplied is to ensure that a suitable member of the Sick Berth Staff is trained and is operative.

3. In a ship the rating should be rated chief of the X-ray workshop on board under the supervision of the Medical Officer.

4. If necessary the Medical Officer should arrange for the rating selected to undergo a short course of instruction in operation of the unit, which should be in the Service Afloat X-Ray Unit at the Royal Naval Hospital, Bana Island, Sick Quarters, where there is a radiologist. He should try to give lectures for the rating to be taken as soon as possible after joining. If a rating is in this category and not both the ship sails it should be done at the first available opportunity.

5. Medical Officers in Charge are to make arrangements for the course of instruction mentioned in paragraph 4 above to be given as soon as possible.

(*A.F.O. 284/47 is cancelled*)

2309.—Medical—Importation of Serious Epidemic Disease through Persons Arriving in the United Kingdom by Aircraft—Precautions Against.

(A.M.D.C. 13758/48.—16 Jul 1948.)

Owing to the speed of modern travel it is possible for a person who has been in contact with a notified serious epidemic disease about to come in his mouth before the expiry of the incubation period of the disease, symptoms may not be manifest until he has left the airport and, in which case, his fellow passengers have been exposed to the risk of infection.

2. *Medical Clearance*.—The Commanding Officer of an R.N. air station is responsible through the Senior Medical Officer that all officers and men of the Service, at an R.N. air station, who are about to undergo medical clearance, are free from all illness.

(a) All recipients of the medical clearance should be interrogated to compile personal histories, through and health (see Appendix A to this Order) and all those passed medically fit men

[illegible]

[illegible]

[illegible]

[illegible]

8 St[illegible]
1 [illegible]
2 [illegible]
3 [illegible]
4 [illegible]
5 [illegible]
6 [illegible]
7 [illegible]
8 [illegible]
9 [illegible]
10 [illegible]

I declare [illegible] belief

[illegible]

NOTICE [illegible]

[illegible]

RAE) [illegible] 194

It is [illegible] same acute [illegible] having [illegible] such a disease [illegible] Borough or District in Scotland [illegible] the patient stating also [illegible]

[illegible] person
[illegible] Ministry of Health
[illegible] Edinburgh
[illegible] Scotland

MINISTRY [illegible] SCOTLAND

IMMUNITY [illegible] ABROAD

While abr[illegible] this one dangerous epidemic disease [illegible] urged in your own interests [illegible]

If [illegible] and [illegible] [illegible]

[illegible]

[illegible] souvent cette arrivée [illegible] consultez [illegible] cette carte [illegible] consulter la [illegible]

(A.F.O. 2428/44 is cancelled.)

*2330—Reserves—Sick Berth Branch R.N.V.R.—Institution

(N. 7135/48.—16 Jul. 1948.)

Approval has been given for the institution of a Sick Berth Branch of the R.N.V.R. in place of the R.N.A.S.B.R. which will not be reconstituted. Detailed regulations will be included in the R.N.V.R. Regulations.

(B.R. 65 (37) R.N.V.R. Regulations.)

(A.F.O. 1580/42 is cancelled.)

*2362—Habitability of H.M. Ships—Improvements

(P. 5693/47.—16 Jul. 1948.)

A.F.O. 2906/46 included a broad outline of some of the [illegible] for improving the habitability of H.M. Ships. The present order amplifies that [illegible] and summarises progress made since it was issued. [illegible] has already been promulgated.

2. At the present time the economic situation inevitably limits [illegible] fulfilment of many of the improvements which Their Lordships [illegible] shortages of material and labour and [illegible] also an important limiting factor. Apart from all this, technical [illegible] space available and the [illegible] especially [illegible] actually completed [illegible] in practice.

3. [illegible]

4. [illegible]

[illegible]

5. [illegible]

[illegible]

difficulties [illegible]
[illegible]
[illegible]

[illegible]

2113.—Medical Examiners and Inspections of Ratings (including W.R.N.S.) and Other Ranks.—R.M.—Uniformity of Procedure to Reduce the Number of Examinations.

(N.P.N. 2552/48.—23 Jul. 1918.)

The Public Health System of Classification has standardized the medical examination and interpretation within the Royal Navy. A similar system exists in the medical examination which the recruits undergo, and general physical condition, height, weight, visual acuity, standard of health, with an indication of mental and emotional qualities. A full examination of the chest is in special

part of the [illegible] 1st August 1948 all R.A.F. and W.A.A.F. [illegible] their [illegible] in assessment [illegible]

2. With [illegible] standardized [illegible] medical [illegible] can be greatly [illegible] procedure [illegible] further [illegible]

3. [illegible] rating [illegible] but [illegible]

4. [illegible] the full [illegible] examination [illegible] medical [illegible] If the [illegible] and [illegible] if

[illegible]

3414.—Medical Examination for Special Aircrew Duties (Revised)

(S.A.F.O. 1148/48.)

[illegible] aircrew [illegible] be [illegible] (A) of [illegible] Medical Officer [illegible] strength [illegible]

[illegible]

3. [illegible] duties [illegible] from the date of [illegible] stress point at the time of the examination [illegible] requirement seem unlikely to be unsatisfactory health and stamina to enable flying, until they are 40 years of age, are to be placed in the appropriate medical category and recommended for medical boarding (A.F.O. 261/47, Section III (F)).

4. In the case of personnel who are found to be medically fit for flying duties the medical officer must satisfy himself beyond doubt that the aircrew, the motives irrespective of age, are fit to carry out their flying duties. In cases of doubt action under the provisions of C.A.F.O. 168/47 should be considered.

[illegible] Medical Officer [illegible] remarks required to be made by the Medical Officer [illegible] Form M 148

(A F O 2615/47 7132/48 and C A I O 168/47)

(A I O 882/48 is cancelled)

2523.—Medical—R.N. Medical Depot, Love Lane, Trincomalee—Closed

(M.D.G. 16998/48.—31 Jul. 1948.)

The R.N. Medical Depot, Love Lane, Trincomalee, has been closed.

Medical stores for service afloat in Pashur will in future be issued from R.N. Hospital, Trincomalee.

Demands and correspondence formerly addressed to the Officer in Charge, R.N. Medical Depot, Love Lane, should be addressed to the Superintending Pharmacist, R.N. Hospital, Trincomalee.

2560.—Medical—History Documents of R.N. Personnel on Loan to R.A.N.—Disposal

(N.2.N. 5185/48.—8 Aug. 1948.)

When Officers and Ratings of the Royal Navy are lent to the Royal Australian Navy their medical history documents are to be forwarded to:—

Australian Naval Liaison Officer,
Centre Block,
85, Jermyn Street,
London, S.W.1.

(A.I.O. 6307/43 is cancelled)

2561.—Medical—R.A.F. Medical Rehabilitation Units No. 2 and No. 5—Admission of R.N. and R.M. Officers

(M.D.G. 14053/48.—6 Aug. 1948.)

Officer patients may be admitted to the R.A.F. Medical Rehabilitation Units No. 2 at Colliton Cross, Dorset, and No. 5 at Monkwell Park, near Wallingford, Berkshire.

2. All types of cases suitable for rehabilitation except those requiring special diets and those suffering from neuropsychosis or surgical for treatment. Patients with a certain amount of organic psychosis secondary to trauma are not excluded from eligibility.

3. Suitable patients may be admitted to these units from any Royal N. Hospital. The Medical Officers in Charge of these establishments are in possession of full details of admission requirements and procedure.

2562.—Medical—R.A.N. Officers—Annual Medical Examination

(M.D.G. 13455/48.—8 Aug. 1948.)

The Australian Naval Board has issued instructions that an annual medical examination is to be made of all R.A.N. Officers on leave, Reserve, Retired and Emergency Officers commencing from 30th April, 1948.

2. Medical Officers of H.M. Ships and establishments in which officers of the Royal Australian Navy are borne are to arrange that the medical examinations of R.A.N. Officers are carried out as soon as possible and that medical examinations are conducted annually thereafter.

3. Forms M.148 are to be completed in respect of each medical examination and the original (furnished) copy of Form M.148 is to be sent to:—

The Naval Liaison Officer,
Commonwealth House,
Canberra House,
85, Jermyn Street,
London, S.W.1.

Duplicate copies are to the Australian Naval Board. The duplicate (only) copy is to be filed in the officer's medical history sheet. A notation as appropriate is also to be made in Form AS 446X.

(A.I.O. 2554/47)

2654.—Dental Treatment and Prosthesis—General Conditions Governing
(ALDG 18125/48 —13 Aug 1948)

SECTION 1 ENTITLEMENT

Naval Personnel and Civilians

Necessary preventive dental treatment and the supply, replacement or repair of dentures (subject to the conditions contained in paragraph 18) is allowable until [illegible]

1. The following personnel:

RN and RM Active Service officers, ratings and other ranks

WRNS officers and ratings

RN and RM officers and other ranks on active service in which employed in full salary in the Admiralty

Members of the Reserve Forces while serving or undergoing

RNVR permanent staff

RN Reserve signal and wireless service

RM Reserve and RM Police Special Reserve while serving,

[illegible]

[illegible] training, or certain [illegible] general or RM establishments

NVD [illegible] and members

QARNNS and QARNNS (R) while serving

NAVY [illegible] shall be available for dental treatment and to the National Health Service

[illegible] is defined in paragraph 1 should be provided under the [illegible] NAVY 2065/48. The following persons who are *[illegible] shall be* —

[illegible] Naval personnel

[illegible] than health certificate [illegible]

[illegible] Reserve [illegible] and retired officers [illegible] the [illegible]

[illegible] Naval [illegible] personnel [illegible] arrangements have been [illegible] Army, RAF or the Civil Services. When Service [illegible] additional to the treatment of serving [illegible] than dental surgery the necessary [illegible] Naval authorities in accordance with NAVY 2065/48 [illegible]

[illegible] paragraph 1 and 2 [illegible] available to obtain [illegible] Health Service [illegible] dental treatment with at [illegible] and [illegible] dental treatment in [illegible] the result of an [illegible] The [illegible] that the [illegible] National Health [illegible] paragraph 22)

[illegible] paragraph 3 [illegible] treatment for the initial [illegible]

NAVY [illegible] (Except as allowed in paragraph 1)

[illegible] (Except as allowed in paragraph 2)

[illegible] Mandatory [illegible]

Non-mandatory

[illegible] Naval [illegible] Naval [illegible] Naval [illegible] than shall (Except as allowed in paragraph 2)

RM [illegible] (Except as allowed in paragraph 1 and Except [illegible] RN [illegible] treatment)

[illegible]

[illegible] M 228 [illegible]

[illegible]

[illegible]

[

DE[illegible] BY CIVILIAN DENTAL PRO[illegible]

10. Where [illegible] R.A.F. in Canada should facilitate [illegible] United Kingdom [illegible] personnel can [illegible] part in the National Health Service. Patients will be treated [illegible] the National Health Service and no financial transaction [illegible] patient and the [illegible] will be made.

11. If a [illegible] not taking part in the National Health [illegible] may be sent to any other dental surgeon [illegible] the cost not exceeding the National Health Service [illegible].

12. On [illegible] S31 authorising treatment to be issued by [illegible] Commanding Officer and the form presented by the patient to the dental [illegible] be [illegible] without prior approval.

13. If [illegible] is required its action and extent, together with [illegible] form S31 by the dental surgeon and the [illegible] Officer who will forward it to the Command Dental Surgeon [illegible] Supply Officer for approval. On return to the dental surgeon [illegible] patient [illegible] are not will not be [illegible] form.

14. [illegible] dental surgeon will [illegible] complete [illegible] S31 [illegible] Officer [illegible] by him to the Commanding [illegible] Supply Officer [illegible] for filing purposes.

15. [illegible] accept and any [illegible] thus [illegible] form S41 which [illegible] will be included [illegible].

16. [illegible] paragraph 13 [illegible] to make [illegible] dental surgeon [illegible] Naval without [illegible] form S31. On [illegible] Commanding Officer [illegible] will be paid [illegible] Naval personnel [illegible].

[illegible] BY CIVILIAN DENTAL PRACTITIONERS [illegible]

[illegible] dental personnel are [illegible] from Naval, Army, R.A.F. [illegible] arrange [illegible] will [illegible] fees to be allowed the National Health Service [illegible] (Ultimate Fixed Orders) [illegible] rate. This being [illegible] the [illegible] limited to the Admiralty [illegible] of the centre [illegible] publication [illegible] National Health Service [illegible] paragraph [illegible] emphasized. [illegible] Dental Surgeon [illegible] Dental Officer [illegible] approval.

[illegible]

18. [illegible] Dental Surgeon [illegible] R.A.F. [illegible] Dental treatment [illegible] National Health Service [illegible] National Health Service [illegible] Naval, Military [illegible].

19. [illegible] Dental Surgeon [illegible] National Health Service [illegible] Naval Dental Officers [illegible] Dental Officer [illegible] approval.

[illegible] TREATMENT IMMEDIATELY PRIOR TO [illegible]

[illegible] personnel are entitled to full dental [illegible] supply [illegible] repair of dentures up to the actual date [illegible] release [illegible] National Health Service [illegible] National Health Service. No claims for payment for treatment [illegible] paid by the [illegible]

USE OF PRECIOUS METALS IN RESTORATIONS

15. [illegible] precious metals in restorations [illegible] restricted to [illegible] essential.

[illegible] essential.

The [illegible] Surgeon of the dental [illegible] satisfy himself [illegible] essentially for the use proposed [illegible]

SECTION III—TRANSITORY ARTICLES

16. Persons entitled to the supply regulations [illegible] are listed in paragraphs 1, 2 and 3 of this Ruling. [illegible] following conditions —

(*a*) That the [illegible] shall be in possession [illegible]

(*b*) That the [illegible] charges to be made in accordance with paragraphs 17 and 18 hereof apply.

CHARGES

17. *Dentures other than Plastic or Vulcanite.*—When dentures of a more expensive type than plastic or vulcanite are supplied, the charge for repair at the patient's request a proportion of the cost based on the National Health Service scale (this is to be borne by the patient). In the first instance application should be made on Form M.23A from the Medical Director-General who will state the amount to be charged for approval for the supply of [illegible]

18. *Unclassified.*—When the supply of dentures is established by medical proper care on the part of the patient, it is not [illegible] the patient. The Dental Officer to state the [illegible] National Health Service scale of fees on Form M.23A and submit it to the Commandant, who will assess the degree of economy and the ability of the patient to pay, and will authorise the amount to be charged for the dentures. The assessment [illegible] the dentures [illegible] National Health Service. [illegible] may be charged for the supply immediately on [illegible] National Health Service practitioner.

19. *Not Fitted.*—[illegible] have been supplied [illegible] dentures in Navy [illegible] and have [illegible] the Dental Officer [illegible] satisfactorily [illegible] the whole cost of the duplicate dentures and the [illegible]

20. *Repairs of Old.*—In the case of repairs [illegible] made in accordance with specified [illegible] Navy [illegible] the dentures are [illegible] by [illegible] In the case of [illegible] made in a foreign port [illegible] M.23A [illegible] be [illegible] authorise [illegible]

ARTICLES NOT IN M.23

21. Below the supply [illegible] M.23 the Senior Dental Surgeon [illegible] the dental [illegible] M.23A [illegible] patient is entitled to [illegible] supply of [illegible] all assessments [illegible] dealing, with the dental [illegible] He will [illegible] that [illegible] paragraph 1 to 19 are satisfied.

When [illegible] be average or above impressions and [illegible] etc may be transm[illegible] M 234 in the first instance in anticipation of [illegible] Applic[illegible] until the patient's mouth is in a fit [illegible] to receive that [illegible]

Th[illegible] displeased with Naval dental [illegible] deatal [illegible]

[illegible] Surgeon is satisfied as to the patient's [illegible] to the [illegible]

[illegible] can be effected before the rating leaves the establishment [illegible] dissolved

[illegible] supplicate is given on Form M 228

[illegible] PERSONS NOT COVERED BY THE NATIONAL HEALTH SERVICE

[illegible] procedure is to be carried out in the case of non industrial and [illegible] who are *not* covered by the National Health Service but [illegible] replacement or repair of dentures without charge to remedy [illegible] attributable to the Service (*see* paragraph 4)

[illegible] in the first instance to his Senior Civil Officer who will arrange [illegible] Naval Dental Officer or if one is not available to a civilian dental surgeon for examination and report on Form M 234 The report should show the extent of the damage sustained and the estimated cost according to the National Health Service scale of fees of the dental work required to remedy the consequences of the injury

Form M 234 is then to be submitted to the Admiralty for approval (*see* Home Dockyard Regulations 190a and 455) or if it is impracticable to obtain prior Admiralty sanction the application may be referred to the Senior Naval Officer for approval A certificate concerning the accident and any corroborative evidence is to be attached to Form M 234

On receipt of approval the necessary work may be carried out On completion of treatment Form M 234 is to be referred to the Expense Accounts Officer of H M dockyard concerned for a notation by him of the cost which should be shown as a credit to Vote 3L (4)

The patient will be liable for the cost of any additional treatment undertaken other than that necessitated by the injury The cost of such additional work, based on the National Health Service scale of fees is to be shown as a separate item on Form M 234 and should be recovered from the patient by the cashier before treatment is commenced

ARRANGEMENTS FOR THE CONSTRUCTION OF PROSTHETIC APPLIANCES

23 Naval dental laboratories should normally be utilised Dental Officers in ships and establishments without dental laboratories are to use those allocated to them by the Commander or Fleet Dental Surgeon

Models etc transmitted by post or service transport are to be suitably packed and labelled to avoid damage or loss Form M 244 is to accompany the work and models are to be clearly marked to assist in identification [illegible] During the course of construction cases are transferred from one laboratory to another the Senior Dental Surgeons of the respective laboratories are to be informed in order that the necessary notations may be made in the laboratory records

Where Naval dental laboratory facilities are unobtainable arrangements should be made if possible with Army R A F or Crown facilities Similarly Senior Dental Surgeons in charge of Naval dental laboratories should afford the same facilities to the Army and the R A F provided Naval requirements are not interfered with and the employment of additional staff is not entailed

In the absence of Naval Army R A F or Crown dental laboratories arrangements may be made with local civilian dental mechanics to undertake prosthetic work at economic rates The details of such contracts are to be communicated to the Medical Director-General

When the [illegible] dentures [illegible] undertaken by civilian dental practitioners should [illegible] National Health Service arrangements are to be made [illegible] in paragraphs 11 and 12.

RECORDS OF THE SUPPLY REGULATIONS [illegible]

24. Form M 238 is to be attached to page [illegible] 17 [illegible] book and is to be used as a record of the [illegible] procedure is to be carried out:

(*a*) When the supply of dental [illegible] National [illegible] to construct a [illegible] supply [illegible]

(*b*) When the supply has been [illegible] Apparatus [illegible] details of supply [illegible] Commanding Officer [illegible] Admiralty Fleet Order [illegible] Commanding Officer [illegible] giving details of supply [illegible] Commanding Officer [illegible]

(*c*) If the supply has been [illegible] the civilian dental surgeon [illegible] filling, part in the National Health Service, the [illegible] Senior Dental Surgeon commanding [illegible] on [illegible] action is as in (*b*) above. The practitioner's name and address [illegible] in the record sheet of Form M 238.

(*d*) If during routine dental inspection it is found that Naval [illegible] possession of dentures which are not recorded in their [illegible] M 238 an appropriate notation is made [illegible] supply has been effected through Service channels or through the National Health Service or other sources.

Form M 234 and Form M 228 also record the supply of dentures [illegible] but not in the former. If Form M 234 has been [illegible] (paragraph 19) the patient's receipt is to be obtained on Form M 228. On completion of supply forms M 234 and M 228 are to be sent to the patient's ship or establishment or Admiralty Fleet Order [illegible] Medical Officer.

(B R 14)

(*A G M 095 17 and is cancelled*)

(*A F Os 1109/48, 2065/48 and 2230/48*)

(*A F Os 2198/46, 6633/46, 7319/46, 167/47, 1871/47, 3101/47 and 2229/48 are cancelled*)

2663.—Prizes—Gilbert Blane Medal 1948—Gilbert Blane Medal 1949—REPORTS

(M D G 1596/48.—13 Aug. 1948.)

There will be no award of the Gilbert Blane Medal 1948. On examination of the claims of the various officers eligible to receive the award there was found to be insufficient satisfaction of the conditions of the award of this medal as set out in the Appendix to the Navy List June 1948, page 149. It has accordingly been decided to reserve the medal for 1948 and to hold a competition next year. Any subsequent year in which an adjudication award will be given. It is considered just to hold a competition.

2. The award of the Gilbert Blane Medal for 1949 will be considered as a result of reports furnished to the Medical Director-General in accordance with the regulations.

3. Applications for consideration of the award should reach the Medical Department not later than 30th April 1949 containing information of work done and supported if possible by documentary evidence.

2686.—Medical—Sterns (Including Dental)—Loss and Breakage

(M D G 189203/48.—14 Aug. 1948.)

In addition, Medical and Dental Officers of H.M. ships is drawn to the necessity for compliance, the last column of Form M 189. By failure to provide a satisfactory explanation the officer concerned becomes liable to be charged the full value of the article.

2. In the case of losses, phrases such as "missing, no muster" are not to be used. The probable cause is to be determined by investigation if the loss is to be entered.

(K.R. and A.I. Art. 1528, clause 1 (e).)

2696.—Civilians—Treatment in Naval Hospitals Abroad—Record in Medical Officer's Journal

(M.D.G. 2297/48.—13 Aug. 1948.)

In order to maintain a detailed record of the sickness of wives and families of Service personnel and of other British civilian personnel treated *abroad* either in hospital or in the sick list in their own quarters, Medical Officers in Charge of Royal Naval Hospitals and Sick Quarters are to include the following additional parts to their Medical Officer's Journals (M. 179):—

M.179D and E	(tables 3 and 4)
M.179F	(General remarks)
M.179G	(Alphabetical Sick List)

2. In form M.179F (General Remarks) the *total number of out patients* seen during the quarter is to be recorded. These out patients would consist only of those with minor ailments who are not actually ill enough to be placed on the sick list either at their own homes or in the hospital or sick quarters.

3. The designations of the persons treated on the sick list or in hospital are to be given in form M.179G in the column headed "Rank or Rating."

4. The approximate number of persons referred to in this Order who are eligible for treatment in the hospital or sick quarters is to be recorded in each journal.

5. If no civilian personnel have been treated this is to be so stated.

2728.—Medical—Underwater Explosions—Effects on Personnel—REPORTS

(M.D.G. 37590/47.—10 Aug. 1948.)

Reports on the effects of underwater explosions on personnel as requested in C.A.F.O. 2/48 and A.F.O. 33/48 are no longer required.

(C.A.F.O. 2/48 and A.F.O. 33/48 are cancelled.)

2785.—Medical—Return of Sickness Rates from H.M. Ships Afloat

(M.D.G. 18758/48.—20 Aug. 1948.)

A revised Return of Sickness Rates from H.M. ships afloat is to be rendered as from 1st October, 1948. A specimen of the revised Return is shown as an Appendix to this Order.

2. The Return is to be rendered only by ships carrying a medical officer. Medical officers in parent ships are to make returns for their parent ship only and not respecting personnel in tenders.

3. The fixed time each week to which the count will refer is at 2359 on each Wednesday. The returns are to be made each calendar month and will include four or five weekly counts depending upon how many Wednesdays there are in the particular calendar month. The figures for the last Wednesday for the previous calendar month are also to be included so that the rate for the first weekly period can be worked out. Nil returns are to be made. Immediately after the last count of the calendar month one copy of the return is to be forwarded to the Medical Director-General, Admiralty, and one copy to the Fleet Medical Officer.

[illegible] be given for each week [illegible] ple [illegible] officers and ratings are [illegible]

[illegible] Duty List [illegible] 28 [illegible] in the Wednesday [illegible]

[illegible] All [illegible] is instruct [illegible] List [illegible]

[illegible]

[illegible]

8 [illegible] ance in the [illegible] included [illegible] primary [illegible] *ter if* [illegible] a given W [illegible] and [illegible] second W [illegible] the third W [illegible] Attending [illegible] List—Sl [illegible] Attending, [illegible] diagnose

9 Cas [illegible]

10 [illegible] bicks [illegible] hospital [illegible] Attending [illegible] ending, [illegible] W [illegible]

11 [illegible] b [illegible] shad [illegible] will [illegible] from [illegible]

12 In [illegible] circumstan [illegible] accidents [illegible]

APPENDIX

Return for four weeks

(which is inapplicable) Name of Ship
Fleet or station

Numbers at 2359 on

Date

Strength
2785 48

(a)
(b)
(c) 2785 48
(d)
(e) Injuries and accidents
Total

Fighting Light Days

Injuries (including contusions (or triangular 7)
2785 48
Total
2785 48

Total hours
2785 48

2785 48

Signature of Medical Officer

(If 3816 48 is cancelled.)

2810.—Medical—Yellow Fever—Protective Inoculation
(M.D.G. 43544/46.—27 Aug. 1948.)

S[illegible] the provisions of K.R. and A.I. Article 1417, Clause 13, all personnel proceeding by whatever means to or passing through areas where yellow fever is endemic [illegible] in possession of written evidence that they have been vaccinated against yellow fever within the previous four years.

2. The endemic yellow fever area comprises:—

"From the mouth of the River Senegal along that river eastward to the 15 degrees North parallel of latitude, thence eastwards along that parallel to the East in border of the Anglo-Egyptian Sudan, thence northwards along the north-western boundary of Eritrea to the Red Sea Coast, thence northwards along the western coast of Africa to the Southern boundary of the Portuguese Province of Angola, that boundary and the southern [illegible] Kenya Colony to its junction with the southern border of the Belgian Congo, thence the 10 degrees South parallel of latitude, thence eastwards along that parallel to the coast of Africa, thence northwards along the coast of Africa to the Red Sea through the Red Sea Islands, the islands of the Gulf of Cutch. The [illegible] Mountains in India and an area 10 kilometres in radius from the centre of the Tana Valley in Kenya in India are excluded. The Bari to Purnea and the Balurghat District in Western Pakistan in Northern Rhodesia and all that part of the Bechuanaland Protectorate which lies north of latitude 21 degrees south and west of longitude 25 degrees 30 minutes east are also included in the African endemic yellow fever area."

All personnel proceeding to the East Indies Station (including those destined for establishments) from the United Kingdom are to be inoculated against yellow fever prior to leaving the United Kingdom.

3. Immunity develops in about ten days after inoculation and this period should elapse before the journey is commenced.

In order to comply with quarantine regulations, Indian personnel proceeding to that country via Ceylon by air must be inoculated at least 14 days before the journey is commenced.

4. Inoculation against yellow fever should precede vaccination against smallpox by [illegible] days, or follow it by 14 days. If for any reason primary vaccination against smallpox has been delayed, first relieving after inoculation should not be [illegible] until [illegible] days.

5. Inoculation against plague, cholera, typhus, typhoid and TAB can be [illegible] the same time as inoculation against yellow fever.

6. [illegible] paragraph 3 [illegible] against yellow fever and vaccination against smallpox [illegible] the same time.

7. While there is no [illegible] that the taking of alcohol [illegible] inoculation [illegible] that people who have recently been inoculated should not take alcohol for a period of 48 hours after inoculation.

8. [illegible] this vaccine [illegible] under [illegible] this season inoculation should be [illegible] the Hospital ships, Sanitary Stations at which the [illegible] When these vaccines are [illegible] they should be stored [illegible] and [illegible] required.

9. [illegible] April. Two months after [illegible] one half (to 10 [illegible]) After three months storage the vaccine [illegible] should be [illegible]

9 Stocks of [illegible] vaccine are held at the following establishments for which [illegible] available by application to the Medical Director [illegible]

Royal Naval Barracks Portsmouth
Royal Naval Hospital Haslar
Royal Naval Hospital Chatham
Royal Naval Hospital Plymouth
Royal Naval Hospital Port Edgar South Queensferry [illegible]
H M Dockyard Gibraltar
Royal Naval Hospital Malta

10 Yellow fever inoculations can be carried out at the [illegible] mentioned in paragraph 9 and also at the following establishments

London The Wellcome Foundation 183–193 [illegible] (All appointments for the Wellcome Foundation [illegible] through the President Admiralty Medical Board Queen Anne [illegible] St James Park London S W 1 Tel WHI 9444 Ext 695)

Ministry of Health and Department of Health for Scotland

England and Wales		Tel No	Days
Birmingham	Regional Blood Transfusion Centre 17 Highfield Road Edgbaston Birmingham 15	Edgbaston 1184	[illegible] 2 to 3 p m
Bristol	Regional Blood Transfusion Centre Southmead Hospital Bristol	Bristol 68021 3	[illegible] 2 to 3 p m
Cambridge	Regional Blood Transfusion Centre Brooklands Avenue Cambridge	Cambridge 2536	Monday 2 30 to 3 30 p m
Cardiff	Regional Blood Transfusion Centre 19 Newport Road Cardiff	Cardiff 4691	Monday 2 30 to 3 30 p m
Leeds	Regional Blood Transfusion Centre Beckett Path York Road Seacroft Leeds	Leeds 45091/2 3	Friday 2 to 3 p m
Manchester	Regional Blood Transfusion Centre Manchester Royal Infirmary Oxford Road Manchester 13	Ardwick 3632	Tuesday 2.30 to 3 30 p.m
Newcastle upon Tyne	Regional Blood Transfusion Centre 78 Jesmond Road Newcastle on Tyne 2	Jesmond 2904	Monday 2 to 3 p m
Oxford	Southern Regional Blood Supply Depot Churchill Hospital Headington Oxford	Oxford 61316	Monday 2 to 3 p m
Plymouth	Regional Blood Transfusion Sub Centre City General Hospital Plymouth	Plymouth 5021	
Southampton	Haematological Department Royal South Hants and Southampton Hospital Tanshaw Street South Ampton (Haematologist Officer Dr H H Cleave)	Southampton 76211	Tuesday 2 30 p m
Truro	Haematological Department Royal Cornwall Infirmary Truro (Dr I D M Hocking)	Truro 3029	Tuesday 10 to 11 a m
Scotland			
Aberdeen	City Hospital Laboratory City Hospital Urquhart Road Aberdeen	Aberdeen 2242 Ext 11	Thursday 3 p m (or by arrangement)

[illegible]	[illegible] St Andrews Bacteriological Department Medical [illegible] Wards Dundee	[illegible] 2144	[illegible]
[illegible]	[illegible] Department Laboratory Lanarkshire [illegible] Pathologist in charge Dr W R Logan	[illegible] 041	Monday [illegible] Wednesday 2 30 to 3 30 p m
Glasgow	Public Health Clinic 20 Cochrane Street Glasgow C 1	Glasgow Central 9600 Ext 302	Friday 2 30 p m
Northern Ireland			
Belfast	Ministry of Health for Northern Ireland Emergency Hospital Musgrave Park Balmoral Belfast	Belfast 67693	By arrangement with Medical Superintendent

At least one day's notice preferably an evening should be given to these Clinics before attending for inoculations

11 Notation is to be made in Pay Books (S 43A) as well as on Medical History Sheets (S 446)

The Medical Officer giving the inoculation is to keep also a record of each certificate (as set out below) granted This should be marshalled by the officer creating concerned as evidence that he has recorded the certificate

INTERNATIONAL CERTIFICATE OF INOCULATION AGAINST YELLOW FEVER

THIS IS TO CERTIFY THAT (Age Sex

whose signature appears below has this day been inoculated against yellow fever

Origin and Batch No of vaccine

Signature of inoculating officer

Official position Place Date

Signature of person inoculated

Home address

This certificate is not valid

(*a*) unless the vaccine and the method employed have been approved by UNRRA

(*b*) until 10 days after the date of the inoculation except in the case of persons re inoculated within four years

2861.—Form M 168—Continuity of Medical Treatment

(PM 3195/48—27 Aug 1948)

A revised Form M 168 has been instituted to replace the present Forms M 168 and M 168 (Officers) and is to be brought into use forthwith

2 Attention is drawn to paragraph 4 of the Instructions on the form which directs that after completion the form should be forwarded to the Ministry of Health (3 B 1) Whitehall S W 1 (it is *not* to be attached to Form S 1034 and forwarded to the Ministry of National Insurance as hitherto)

3 Stocks of the forms should be demanded from the S N S O R N Store Depot Fitzroy Road Park Royal N W 10

(*A F O 2243/45 is cancelled*)

Preparations

[illegible] Tablets

[illegible] possessing [illegible] Boots, [illegible] Street, Nottingham

Myer [illegible] The British Drug Houses [illegible] City Road [illegible]

Cin[illegible] from W. Edwards & Co. [illegible] Street [illegible]

[illegible]

Notice

The [illegible] to send in original papers [illegible] travel [illegible] of naval matters [illegible] naval medical [illegible] ships and establishments [illegible] foreign stations [illegible] and deaths are inserted [illegible] large to subscribers.

All [illegible] published in the JOURNAL OF THE ROYAL NAVAL MEDICAL [illegible] property of the Journal will full copyright powers [illegible] the article that he desires to reserve the copyright in himself.

The Harvard [illegible] be employed for bibliographical references; these references [illegible] alphabetical order of the authors names at the end of the contribution thus: Smith H. G. (1935) *J. roy. nav. med. Serv.* **22**: 53. In the text a reference to a publication should be cited by giving the author and in brackets the date, thus: Smith (1935) believed that it be done, &c.

All communications should reach the Editors on or before the first of the month preceding the date of issue. [illegible] should be clearly written; they should be typed in order to avoid mistakes; and they should be addressed to the Editors, JOURNAL OF THE ROYAL NAVAL MEDICAL SERVICE, Monckton House, Alverstoke, Gosport, Hants.

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[illegible]

[illegible] — [illegible]

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[illegible] — [illegible]

[illegible] — 84

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[illegible] — [illegible]

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Pulmonary [illegible] — [illegible]

[illegible]

A Medical [illegible] — [illegible]

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[illegible] — [illegible]

[illegible] — [illegible]

[illegible]

[illegible] — 41

[illegible]

[illegible] — 39

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[illegible] — 16

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[illegible] — 148

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[illegible] — [illegible]

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[illegible] — 161

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Hospital [illegible] — [illegible]

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[illegible]

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[illegible] Observations [illegible] 2

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[illegible] with Second [illegible] [illegible]

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